

# TC-WR701ES / WR735S

## SERVICE MANUAL

US Model

TC-WR701ES

Canadian Model

AEP Model

Australian Model

TC-WR735S



This photo is TC-WR701ES.

Model Name Using Similar Mechanism	TC-WR690/WR790	
Tape Transport Mechanism Type	DECK A	TCM-190RB11C
	DECK B	TCM-190RB11C

### SPECIFICATIONS

Recording system	4-track 2-channel stereo		
Fast winding time	Approx. 90 sec. (with Sony C-60 cassette)		
Bias	AC bias		
Signal-to-noise ratio (at peak level and weighted)			
Cassette (Dolby NR off)	Type IV 58 dB	Type II 57 dB	Type I 55 dB

S/N ratio improvement (approximate values)  
with Dolby B NR on: 5 dB at 1 kHz; 10 dB at 5 kHz  
with Dolby C NR on: 15 dB at 500 Hz; 20 dB at 1 kHz  
with Dolby S NR on: 10 dB at 100 Hz; 24 dB at 1 kHz

Harmonic distortion  
0.4% (with Type I, 160 nWb/m, 315 Hz,  
3rd H.D.)  
1.8% (with Type IV, 250 nWb/m, 315 Hz,  
3rd H.D.)

Frequency response (Dolby NR off)

Type IV cassette	30 - 19,000 Hz ( $\pm 3$ dB, IEC) 30 - 13,000 Hz [ $\pm 3$ dB (-4 dB) recording]
Type II cassette	30 - 18,000 Hz ( $\pm 3$ dB, IEC)
Type I cassette	30 - 16,000 Hz ( $\pm 3$ dB, IEC)

Type IV : Sony METAL-S  
Type II : Sony UX-S  
Type I : Sony HF-S

Wow and flutter  
 $\pm 0.13\%$  W.Peak (IEC)  
 $0.07\%$  W.RMS (NAB)  
 $\pm 0.18\%$  W.Peak (DIN)

Inputs

Line inputs (phono jacks)	Sensitivity	0.16 V
	Input impedance	47 k ohms

#### Outputs

Line outputs (phono jacks)	Rated output level	0.5 V at a load impedance of 47 k ohms
	Load impedance	Over 10 k ohms
Headphones (stereo phone jack)	Output level	1 mW at a load impedance of 32 ohms

#### General

Power requirements	120 V AC, 60 Hz (US, Canadian model) 220—230 V AC, 50/60 Hz (AEP, German model)
Power consumption	240 V AC, 50/60 Hz (Australian model)
Dimensions	33 W
	Approx. 430×135×295 mm (w/h/d) (17 $\times$ 5 $\frac{3}{8}$ $\times$ 11 $\frac{1}{8}$ inches) including projecting parts and controls
Mass	Approx. 4.8 kg (10 lbs 10 oz)

#### Supplied accessories

Audio connecting cords (2)

Design and specifications are subject to change without notice.

STEREO CASSETTE DECK  
**SONY®**



使用時は添付資料も参考のこと  
Refer to the additional documents

## Features

### For higher quality recording/playback

- The Dolby HX PRO\* system which improves the linearity of the tape's high-range response during recording.
- B, C and S type Dolby NR\* systems which reduce tape noise.
- Automatic calibration on each deck which ensures optimum recording conditions to bring out the best in every tape.

### For your convenience

- Automatic tape type detection during playback and recording.
- The Multi-AMS and Memory Play functions which provide easy access to a desired selection.
- A relay function for long recording and playback.
- Auto play function which automatically starts playback after tape rewinding to start.
- Synchronized dubbing at normal or high speed.
- Simultaneous Recording function for the simultaneous recording of the same source to cassettes in both decks.

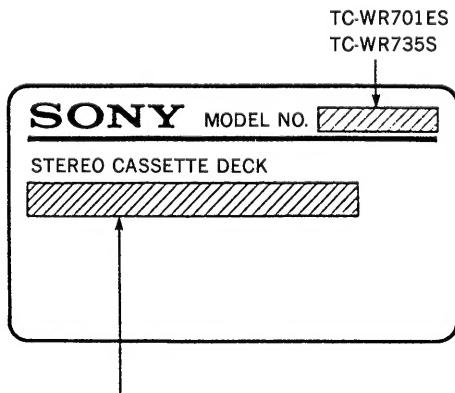
### For easier operation

- Twin easy-to-read linear counters which show the elapsed recording or playing time on each deck.
- An optional remote commander which allows the remote control of various operations.

\* Dolby noise reduction and HX Pro headroom extension manufactured under license from Dolby Laboratories Licensing Corporation. HX Pro originated by Bang & Olufsen.

"DOLBY", the double-D symbol  and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.

### MODEL IDENTIFICATION (Specification Label)



US, Canadian model: AC 120V 60Hz 33W  
AEP, German model : AC 220—230V~50/60Hz 33W  
Australian model : AC 240V~50/60Hz

## SAFETY CHECK-OUT (US Model)

After correcting the original service problem, perform the following safety check before releasing the set to the customer:

Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

### LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

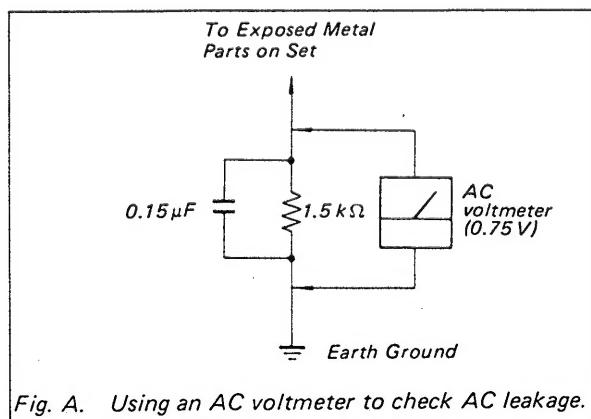


Fig. A. Using an AC voltmeter to check AC leakage.

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### SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK OR DOTTED LINE WITH MARK ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

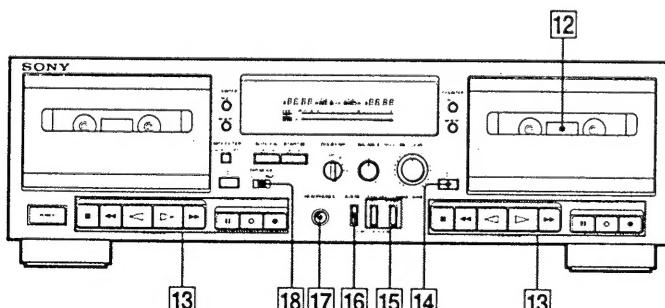
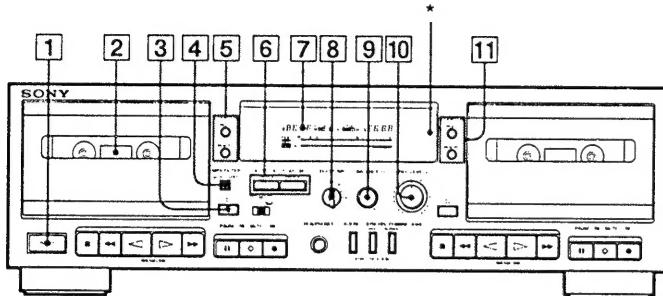
### ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

## SECTION 1 GENERAL

This section is extracted from instruction manual.

### Identifying the Parts



#### Front Panel

For details, refer to the page number(s) indicated in parentheses.

- [1] POWER switch
- [2] Deck A
- [3] ▲ (eject) button (deck A)
- [4] MPX (multiplex) FILTER ON/OFF switch (36)
- [5] COUNTER buttons (deck A) (30)  
RESET button  
MEMORY button
- [6] AUTO CAL (calibration) buttons (DECK A, DECK B) (48,50)
- [7] Display panel
- [8] DOLBY NR (Dolby noise reduction) switch (18,22,32,42,44)
- [9] BALANCE control (32)
- [10] REC (recording) LEVEL control (32,36)
- [11] COUNTER buttons (deck B) (30)  
RESET button  
MEMORY button

\* Remote control sensor

You can remotely control this cassette deck with:

- A remote commander that came with a Sony amplifier or receiver if it has the mark and cassette deck control capability.
- Any optional Sony remote commander with the mark and cassette deck control capability.

[12] Deck B

[13] Tape operation buttons

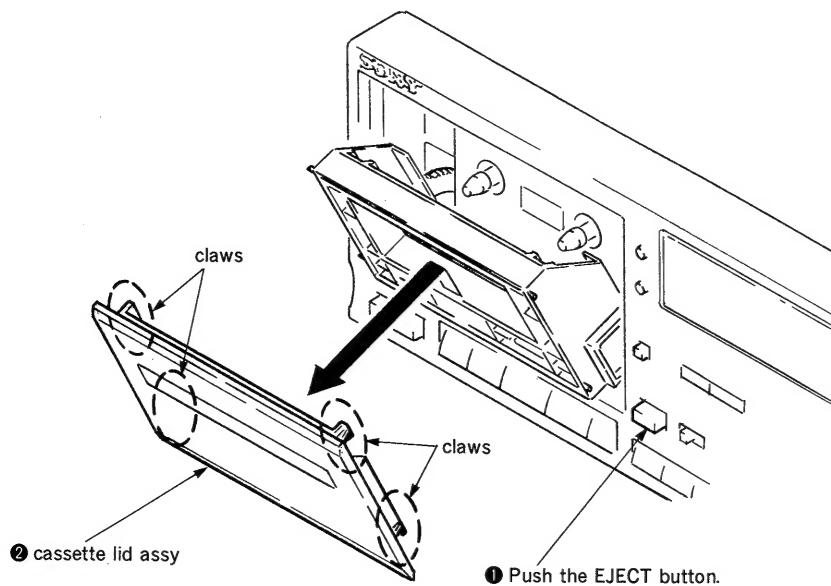
- (stop) button
- ◀◀ (leftward fast winding) (Multi-AMS\*\*) button
- ◀ (reverse play) button
- ▶ (forward play) button
- ▶▶ (rightward fast winding) (Multi-AMS\*\*) button
- PAUSE button
- REC MUTE (record muting) button (46)
- REC (recording) button
- [14] ▲ (eject) button (deck B)
- [15] SYNCHRO DUBBING buttons (52)  
HIGH speed button  
NORMAL speed button
- [16] A+B REC (simultaneous recording) button (42)
- [17] HEADPHONES jack (stereo phone jack)
- [18] DIR (direction) MODE switch (18,22,32,42,44,52)

\*\* AMS is an abbreviation for Automatic Music Sensor.

## SECTION 2 DISASSEMBLY

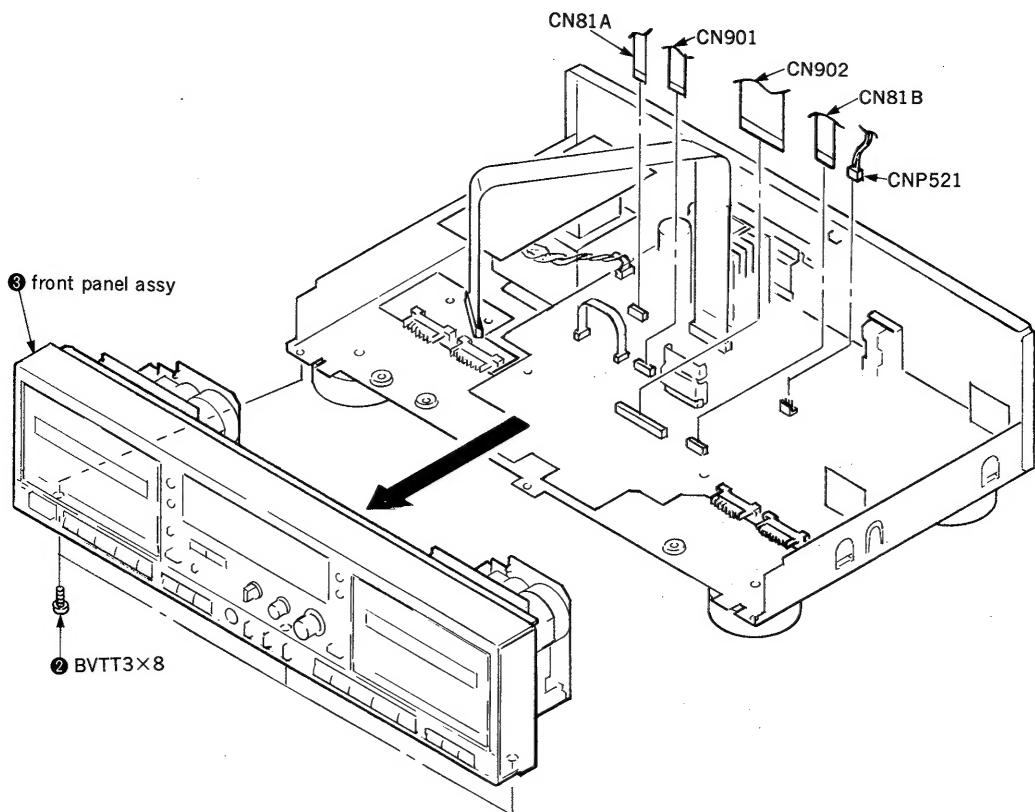
Note : Follow the disassembly procedure in the numerical order given.

### 2-1. CASSETTE LID ASSY

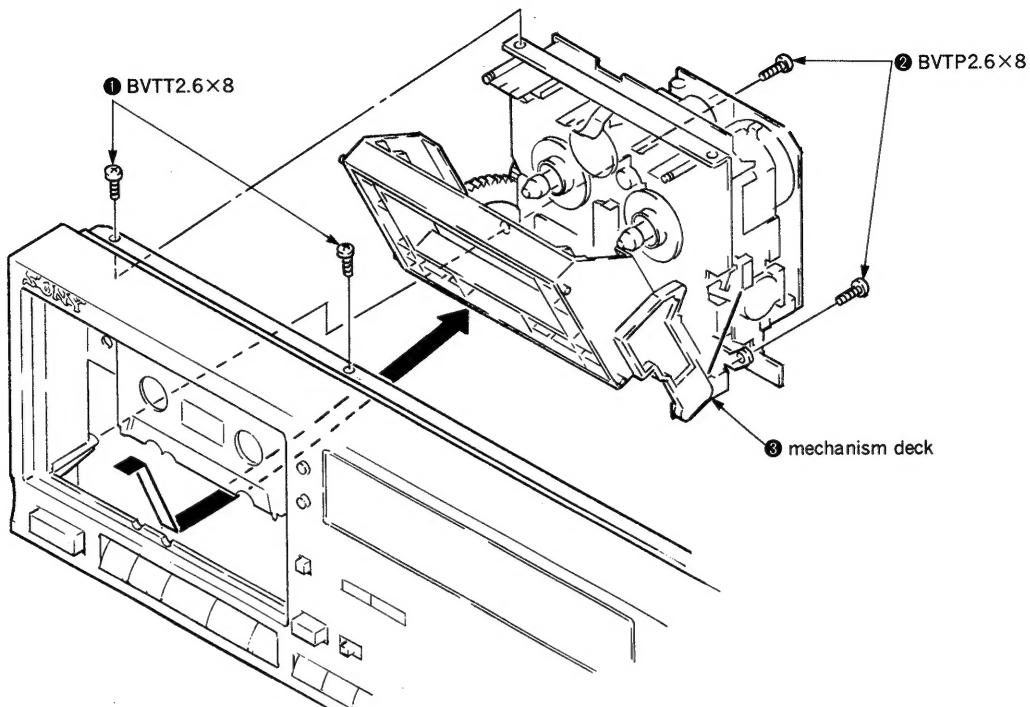


### 2-2. FRONT PANEL ASSY

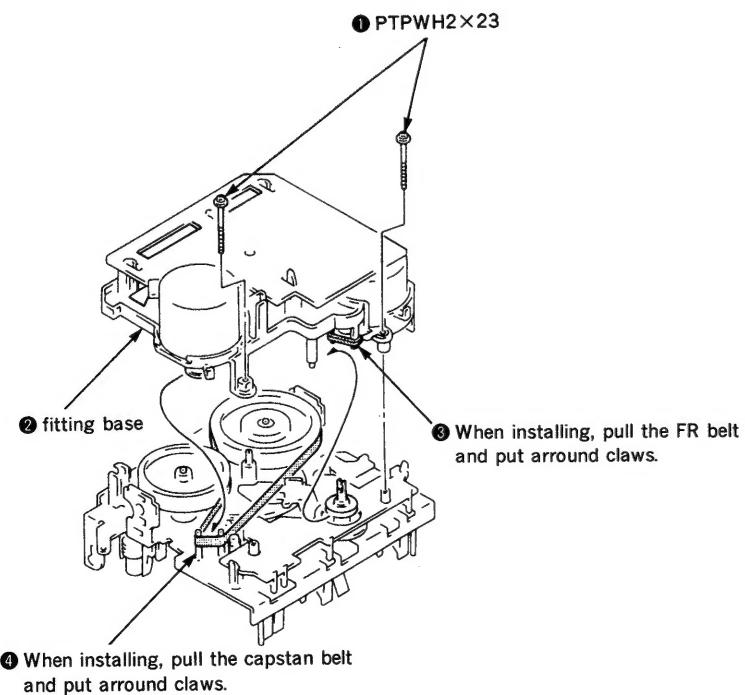
- ① Remove the connectors.



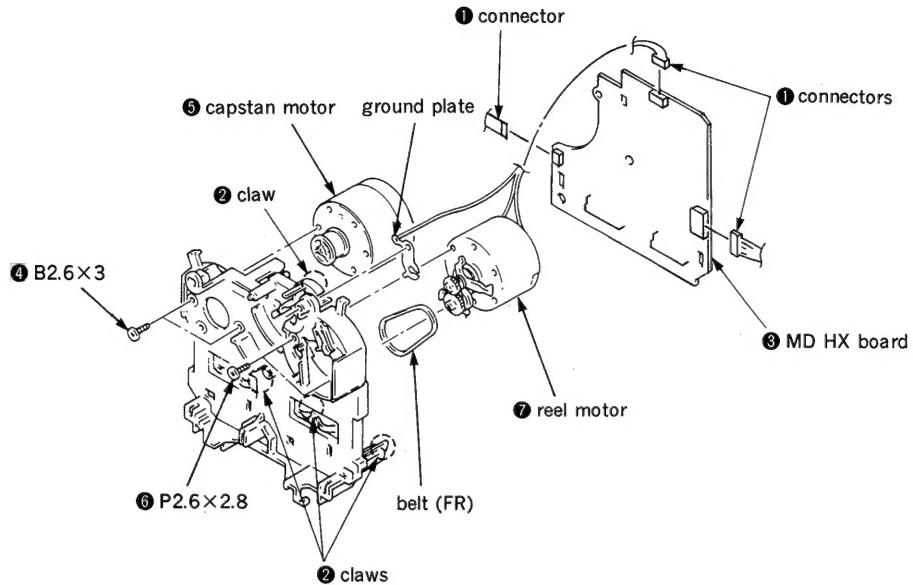
## 2-3. MECHANISM DECK



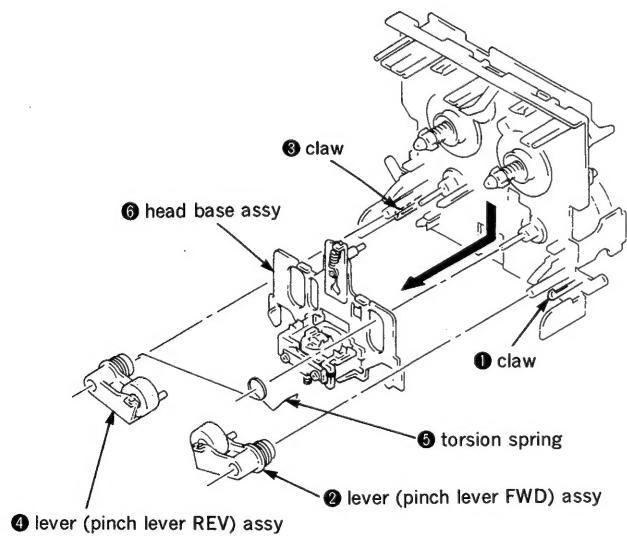
## 2-4. CAPSTAN MOTOR, REEL MOTOR (1)



## 2-5. CAPSTAN MOTOR, REEL MOTOR (2)



## 2-6. HEAD, PINCH ROLLER



## SECTION 3 MECHANICAL ADJUSTMENTS

### PRECAUTION

- Clean the following parts with a denatured alcohol-moistened swab :
 

record/playback/erase head	pinch roller
rubber belts	idle
capstan	
- Demagnetize the record/playback head with a head demagnetizer.  
(Head demagnetizer do not approach for the erase head.)
- Do not use a magnetized screwdriver for the adjustment.
- After the adjustments, apply suitable locking compound to the parts adjusted.
- The adjustments should be performed with the rated power supply voltage unless otherwise noted.

### Torque Measurement

Torque	Torque meter	Meter reading
Forward	CQ-102C	30 to 65g·cm (0.42 to 0.90 oz·inch)
Forward back tension	CQ-102C	1 to 6g·cm (0.014 to 0.08 oz·inch)
Reverse	CQ-102RC	30 to 65g·cm (0.42 to 0.90 oz·inch)
Reverse back tension	CQ-102RC	1 to 6g·cm (0.014 to 0.08 oz·inch)
Forward, Reverse	CQ-201B	70 to 120g·cm (0.98 to 1.67 oz·inch)

## SECTION 4 ELECTRICAL ADJUSTMENTS

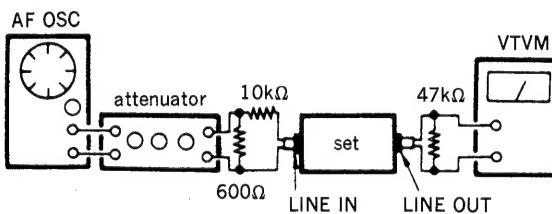
### PRECAUTION

- The adjustment should be performed in the publication.  
(Be sure to make playback adjustment at first.)
- The adjustment and measurement should be performed for both L-CH and R-CH.

● Switch position  
 DOLBY NR switch : OFF  
 DIR MODE switch :  $\Rightarrow$

● Standard record position  
 Deliver the standard input signal level to input jack and set the REC LEVEL control to obtain the standard output signal level as follows.

—Record Mode—



### Standard Input Level

Input terminal	LINE IN
source impedance	10kΩ
input signal level	0.25V (-10dB)

### Standard Output Level

Output terminal	LINE OUT
load impedance	47kΩ
output signal level	0.44V (-5dB)

### Test Tape

Tape	Contents	Use
P-4-A100	10kHz, -10dB	Azimuth Adjustment
P-4-L300	315Hz, 0dB	Level Adjustment
WS-48B	3kHz, 0dB	Tape Speed Adjustment

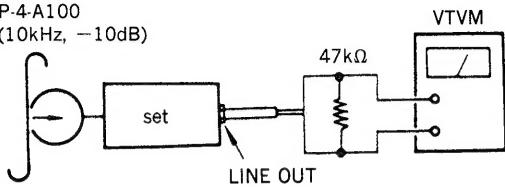
## Record/Playback Head Azimuth Adjustment

**DECK A    DECK B**

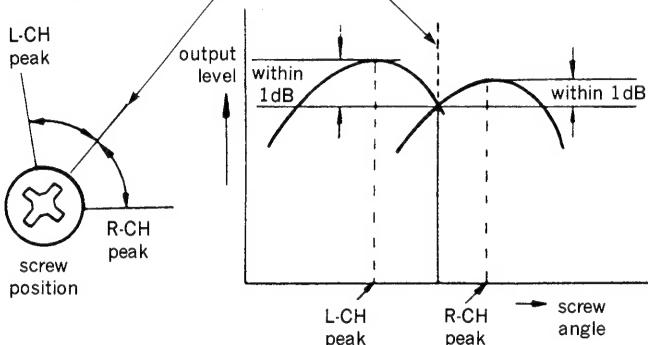
### Procedure :

- Reverse Playback Mode

test tape  
P-4-A100  
(10kHz, -10dB)

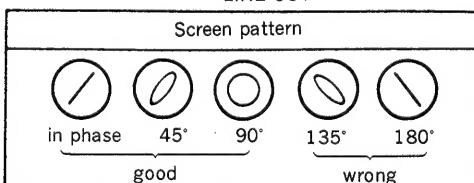
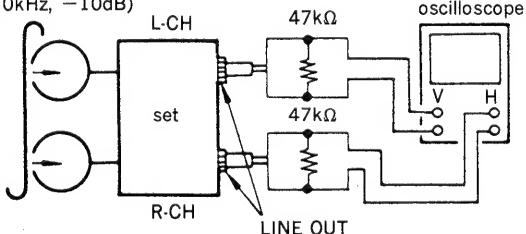


- Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 1dB.



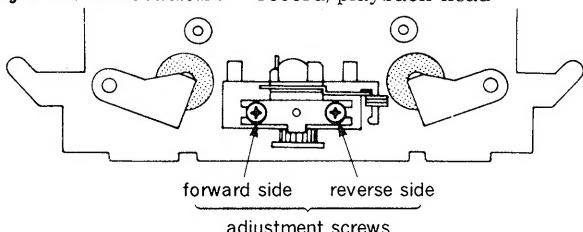
- Playback Mode

test tape  
P-4-A100  
(10kHz, -10dB)



- Change the forward playback mode and repeat the steps 1 to 3.
- After the adjustment, lock the adjustment screws with suitable locking compound.

**Adjustment Location : —record/playback head—**



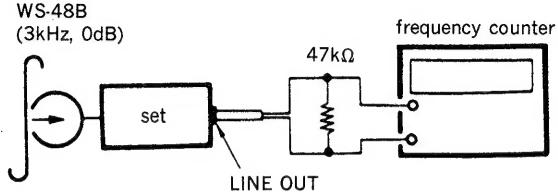
## Tape Speed Adjustment **DECK A    DECK B**

Perform high speed adjustment before normal speed adjustment.

### Procedure :

- Forward Playback Mode—

test tape  
WS-48B  
(3kHz, 0dB)



(high speed adjustment)

- Short the connector TP1 (pins ① and ②). (test mode)
- Keep on pressing the SYNCHRO DUBBING HIGH switch.
- Adjust each RV72 so that the frequency counter reading becomes within adjustment limits of  $6,000 \pm 20\text{Hz}$  on both of deck A and deck B.
- Change the reverse playback mode and repeat the steps 2 and 3.

(normal speed adjustment)

- After adjustment, open the connector TP1.
- Keep on pressing the SYNCHRO DUBBING NORM switch.
- Adjust each RV71 so that the frequency counter reading becomes within adjustment limits of  $3,000 \pm 10\text{Hz}$  on both of deck A and deck B.
- Change the reverse playback mode and repeat the steps 6 and 7.

Frequency difference between the beginning and the end of the tape should be within 3%.

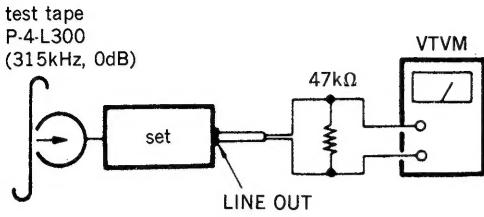
Frequency difference between deck A and deck B the beginning of the tape should be within 1.5%.

**Adjustment Location : MD HX board**

## Playback Level Adjustment DECK A DECK B

### Procedure :

—Forward Playback Mode—



Adjust each RV11 (L-CH) and RV21 (R-CH) so that the VTVM reading becomes within adjustment limits below on both of deck A and deck B.

### Adjustment Limits :

LINE OUT level :  $-7.7 \pm 0.5\text{dB}$  (0.301 to 0.338V)

Level difference between channels : within 0.5dB

Confirm the LINE OUT level does not change in playback mode while changing the mode from playback to stop several times.

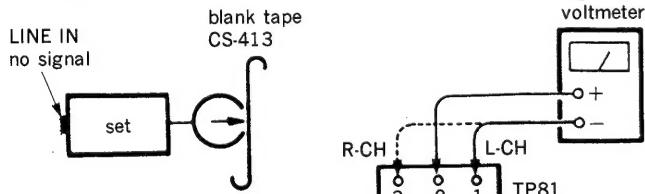
**Adjustment Location :** MD HX board

## Bias Consumption Current Adjustment

### DECK A DECK B

This adjustment should be performed when replacing the head assy or the bias oscillating transformer (T81, T91).

### Procedure :



1. Connect the digital voltmeter to test point TP81.
2. Set RV81 (L-CH) and RV91 (R-CH) to mechanical center.
3. Set to forward record mode.
4. Adjust T81 (L-CH) and T91 (R-CH) so that the digital voltmeter reading becomes minimum.

**Adjustment Location :** MD HX board

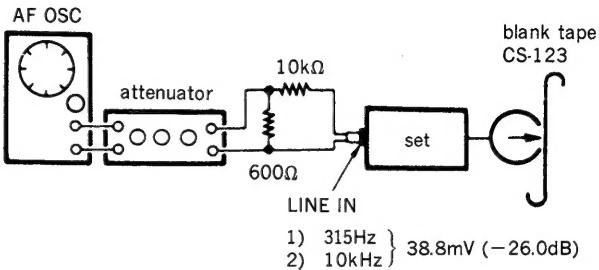
## Record Bias Adjustment DECK A DECK B

### Setting :

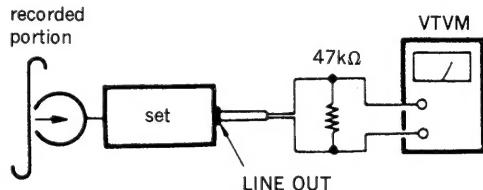
REC LEVEL control: standard record position (Refer to page 8.)

### Procedure :

1. Record Mode



2. Playback Mode



3. Playback the signal recorded in step 1, and confirm that the 10kHz playback output level is VTVM reading becomes within adjustment limits below relative to the 315Hz output.
4. If the adjustment limits are not satisfied, adjust each RV81 (L-CH) and RV91 (R-CH) so that the VTVM reading becomes within adjustment limits below.

### Adjustment Limits :

10kHz playback output

relative to the 315Hz output :  $0 \pm 0.5\text{dB}$   
(0.732 to 0.821V)

**Adjustment Location :** MD HX board

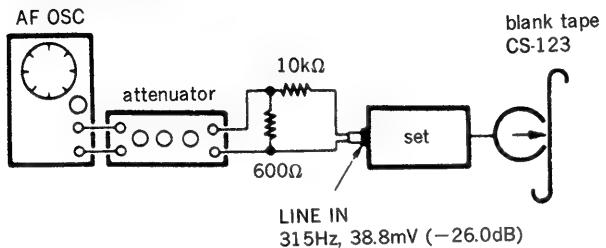
## Record Level Adjustment DECK A DECK B

### Setting :

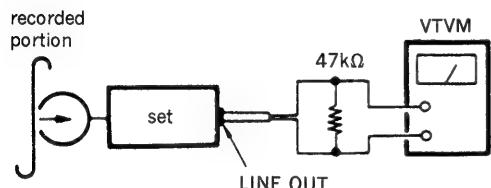
REC LEVEL control: standard record position (Refer to page 8.)

### Procedure :

1. Record Mode



2. Playback Mode



(Deck A)

3. Playback the signal recorded in step 1, and confirm that the playback output level is VTVM reading becomes within adjustment limits below.
4. If the adjustment limits are not satisfied, adjust each RV181 (L-CH) and RV281 (R-CH) so that the VTVM reading becomes within adjustment limits below.

(Deck B)

5. Similarly, playback the signal recorded in step 1, and confirm that the playback output level is VTVM reading becomes within adjustment limits below.
6. If the adjustment limits are not satisfied, adjust each RV171 (L-CH) and RV271 (R-CH) so that the VTVM reading becomes within adjustment limits below.

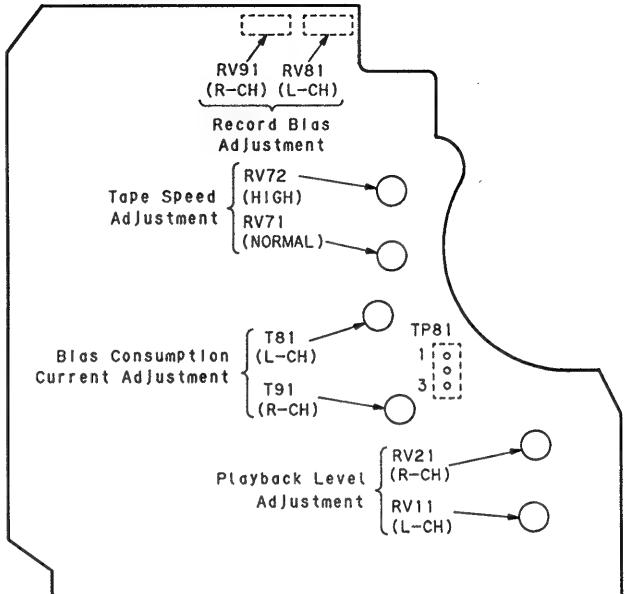
### Adjustment Limits :

315Hz playback output level :  $-26.0 \pm 0.5\text{dB}$  (36.7 to 41.1mV)

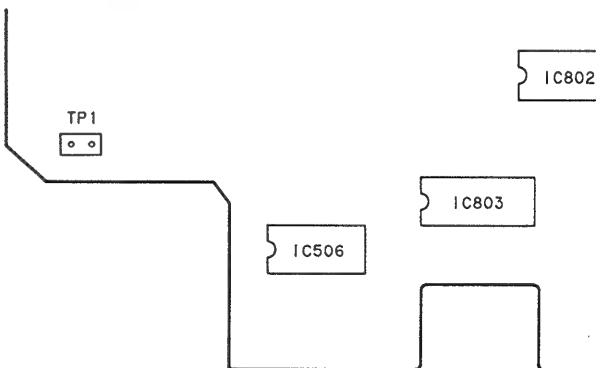
### Adjustment Location : main board

### Adjustment Location :

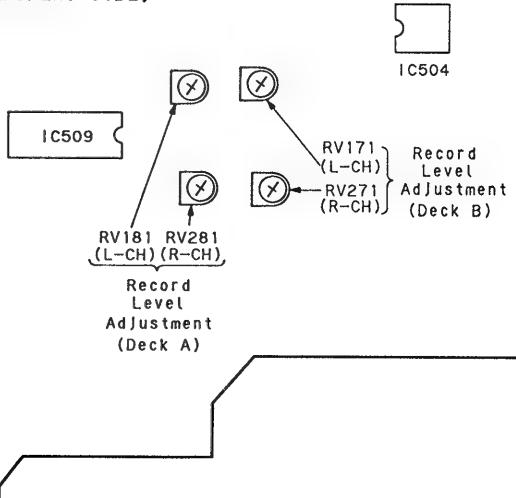
#### 【 MD HX BOARD 】 (CONDUCTOR SIDE)



#### 【 MAIN BOARD 】 (COMPONENT SIDE)

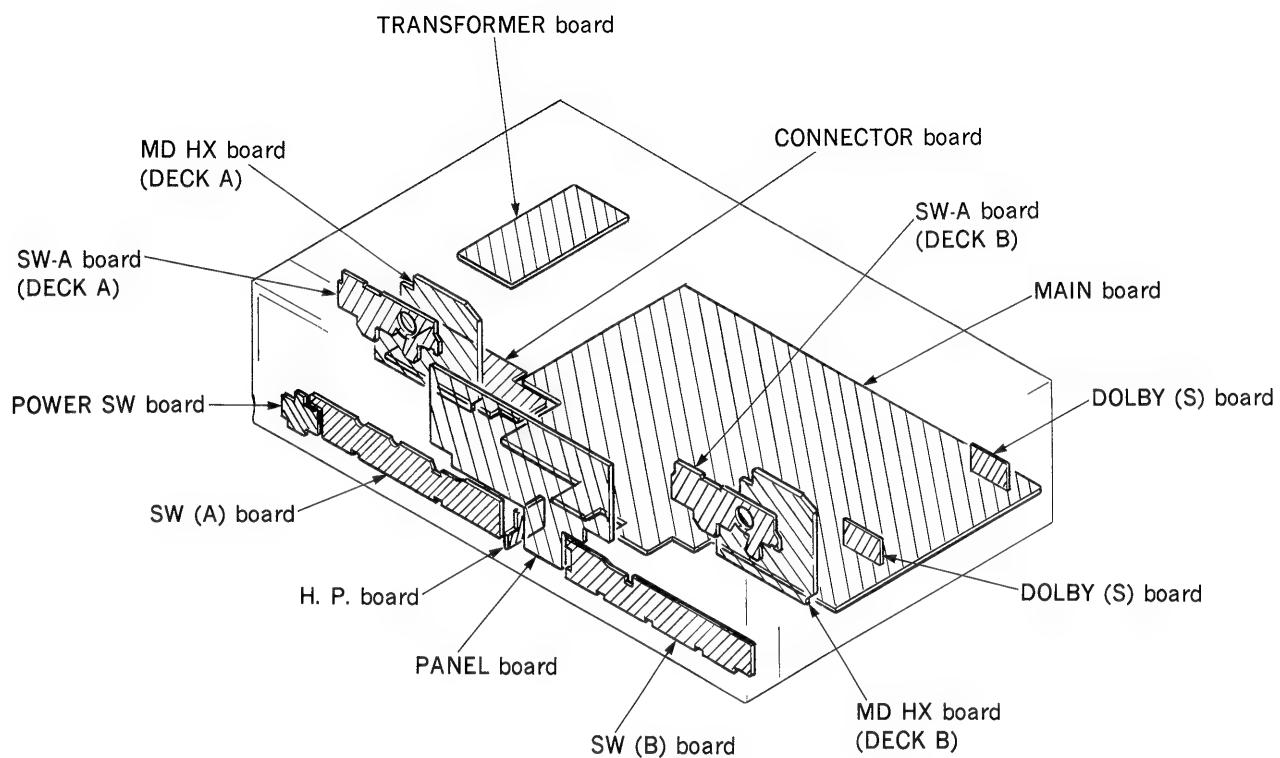


#### 【 MAIN BOARD 】 (COMPONENT SIDE)



## SECTION 5 DIAGRAMS

### 5-1. CIRCUIT BOARDS LOCATION



## • Semiconductor Location

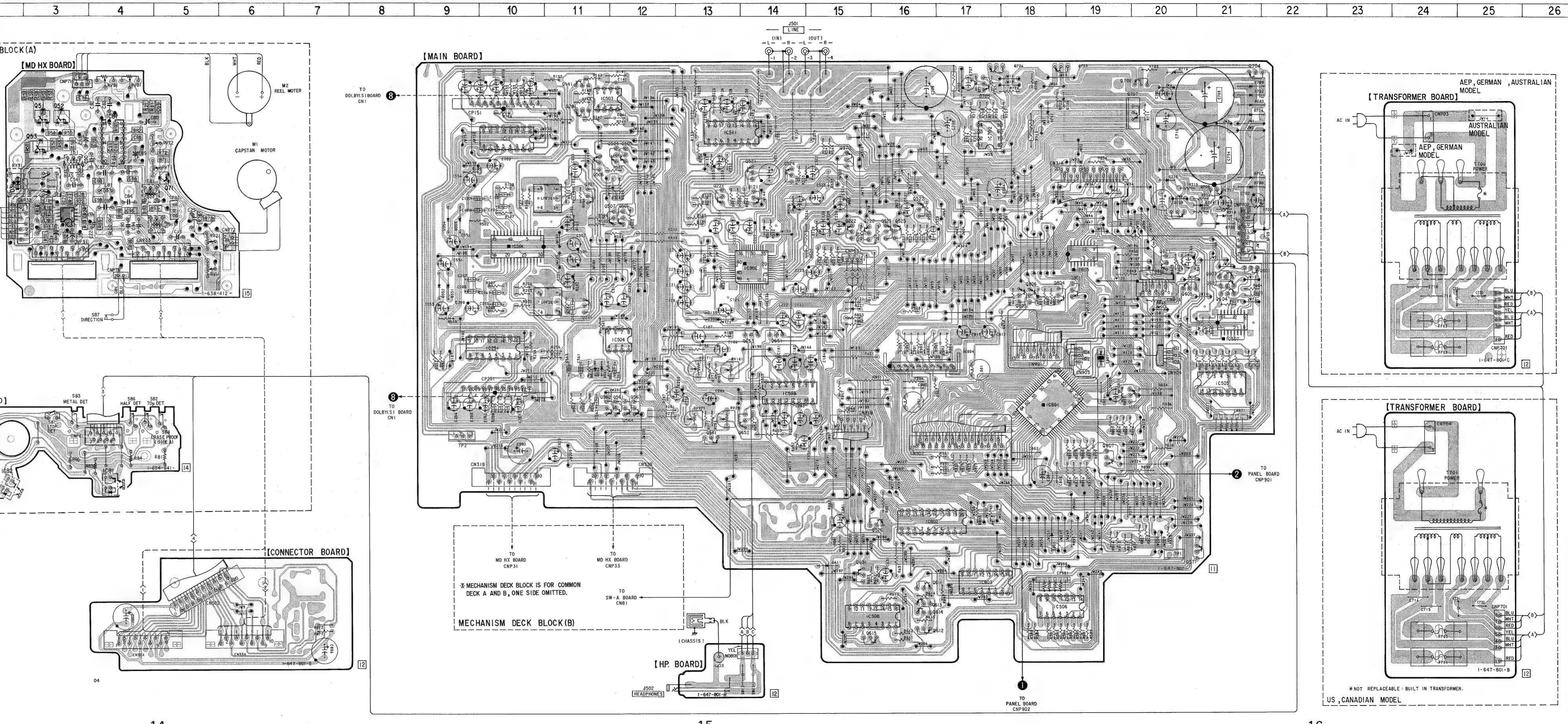
Ref. No.	Location	Ref. No.	Location
D31	C-2	Q52	B-3
D121	E-15	Q53	B-3
D221	E-15	Q71	C-5
D502	D-14	Q101	C-11
D505	C-12	Q121	C-14
D551	E-9	Q122	D-15
D552	E-9	Q141	B-11
D553	D-9	Q201	E-11
D554	D-9	Q221	C-13
D561	F-11	Q222	D-15
D562	F-11	Q241	B-11
D601	C-19	Q501	D-12
D611	I-15	Q504	C-12
D702	B-21	Q505	C-12
D703	B-21	Q506	C-11
D704	B-21	Q507	D-12
D705	B-21	Q521	C-14
D706	C-21	Q522	C-16
D707	C-21	Q523	D-16
D708	D-21	Q524	C-14
D709	D-21	Q525	D-16
D710	A-20	Q526	H-16
D711	A-17	Q541	G-13
D712	B-18	Q561	F-12
D713	C-20	Q562	F-11
D714	C-21	Q563	F-12
D715	D-21	Q564	F-12
D716	B-18	Q570	C-15
D717	B-15	Q571	I-20
D801	H-18	Q601	D-21
D802	E-18	Q602	E-21
IC31	D-3	Q603	D-21
IC81	B-4	Q604	E-21
(IC81)	H-4	Q605	E-20
IC82	H-2	Q611	I-16
IC151	B-10	Q612	J-16
IC251	F-10	Q613	J-16
IC501	D-10	Q614	J-16
IC502	D-14	Q615	J-15
IC503	B-11	Q621	D-20
IC504	E-12	Q631	I-15
IC505	F-21	Q651	E-14
IC506	J-18	Q652	G-14
IC507	E-21	Q653	E-14
IC508	J-15	Q702	B-20
IC509	F-14	Q703	A-18
IC511	B-13	Q704	A-21
IC702	B-17	Q705	B-17
IC801	F-18	Q706	A-17
IC802	H-16	Q707	B-19
IC803	I-17	Q708	C-21
IC804	F-16	Q709	C-20
IC805	D-19	Q801	E-19
IC811	F-19	Q804	E-18
Q51	B-3	Q805	E-18
		Q806	E-18
		Q807	G-19

( ): SW-A BOARD

Note:

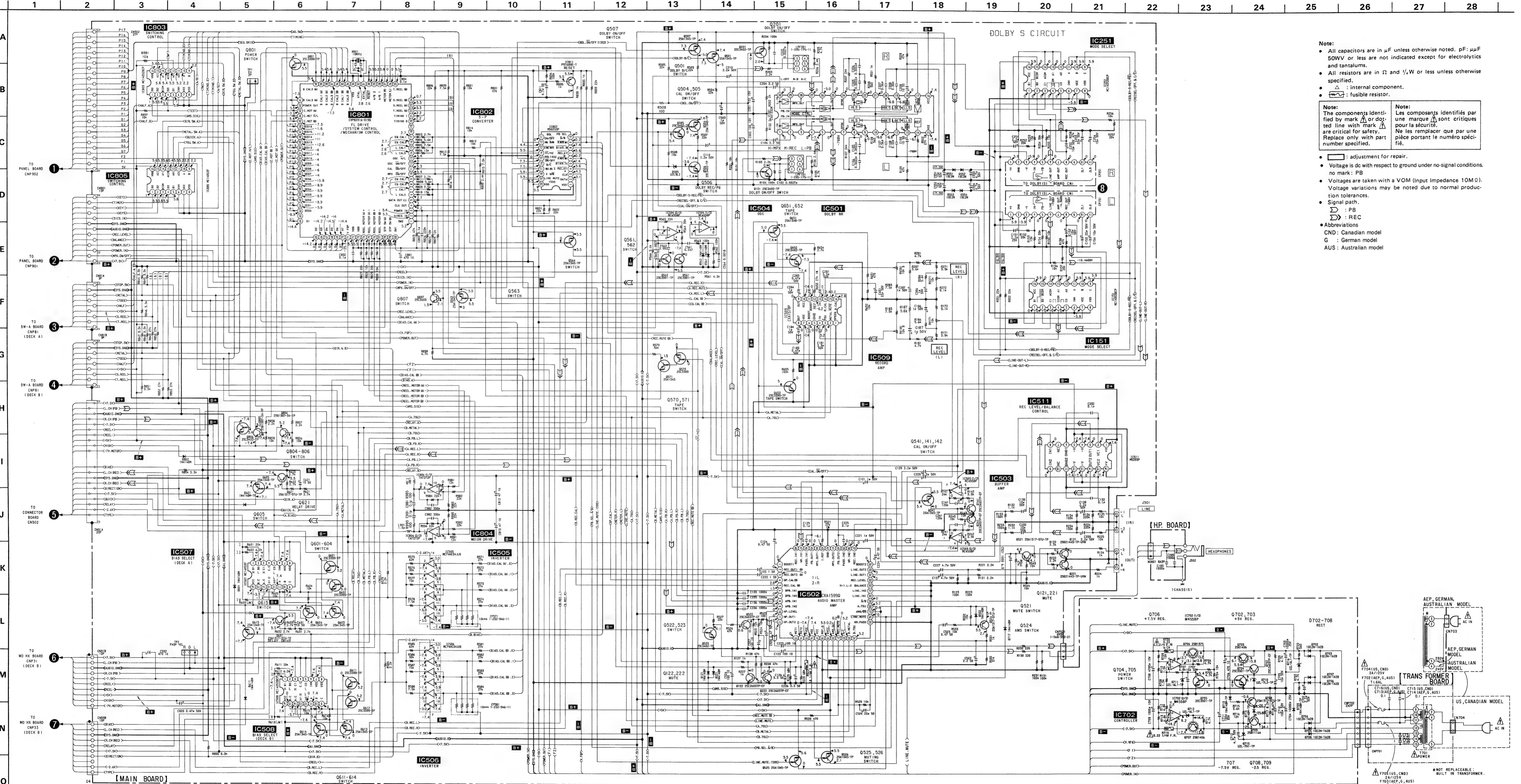
- ○ : parts extracted from the component side.
- ■ : parts mounted on the conductor side.
- ● : Through hole.
- ■■ : Pattern on the side which is seen.
- ■■■ : Pattern of the rear side.

## 5-2. PRINTED WIRING BOARDS —MAIN SECTION— • Refer to Page 27 for Semiconductor Lead Layouts.

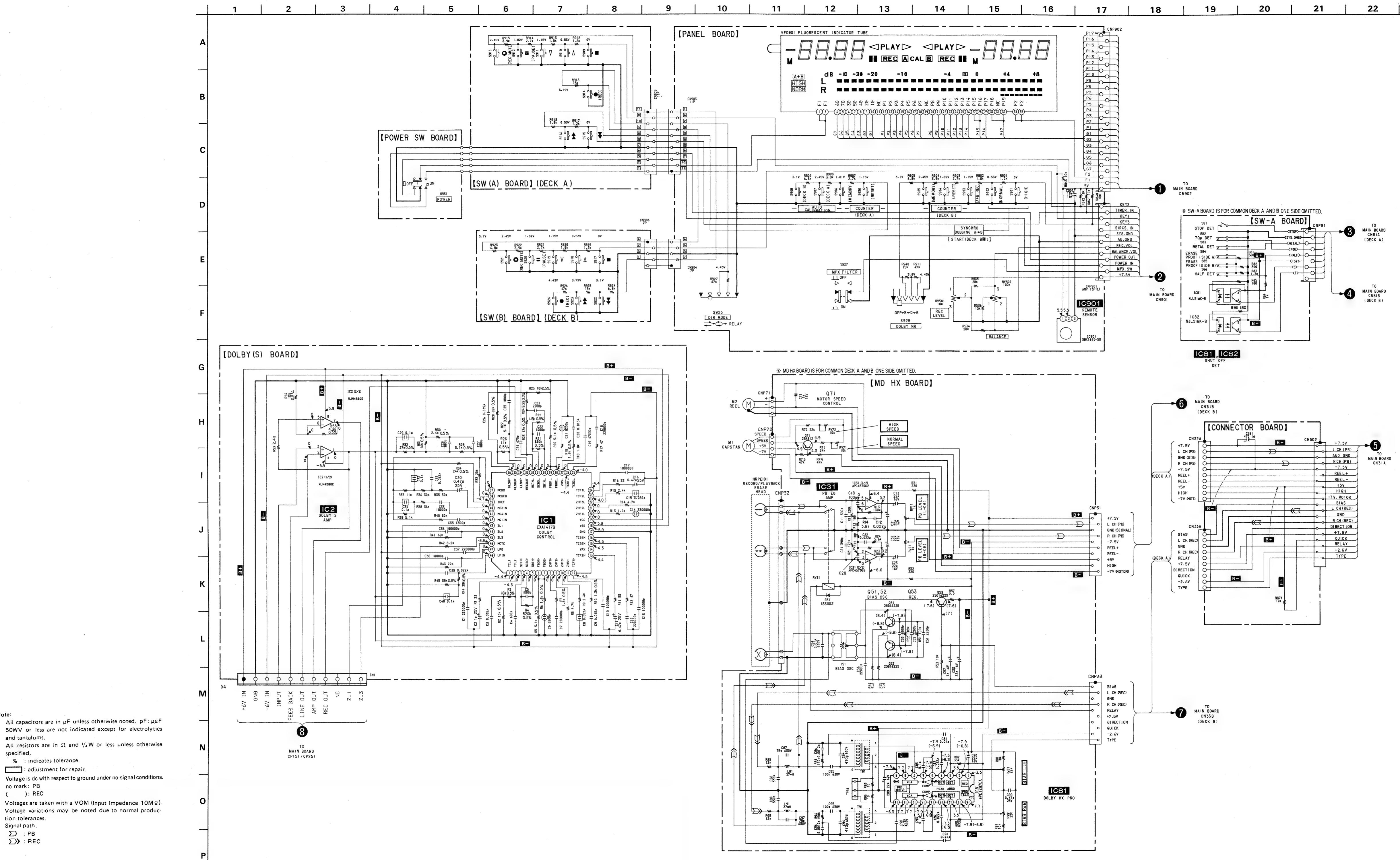


**5-3. SCHEMATIC DIAGRAM —MAIN SECTION—** • Refer to Page 28 for IC Block Diagrams.

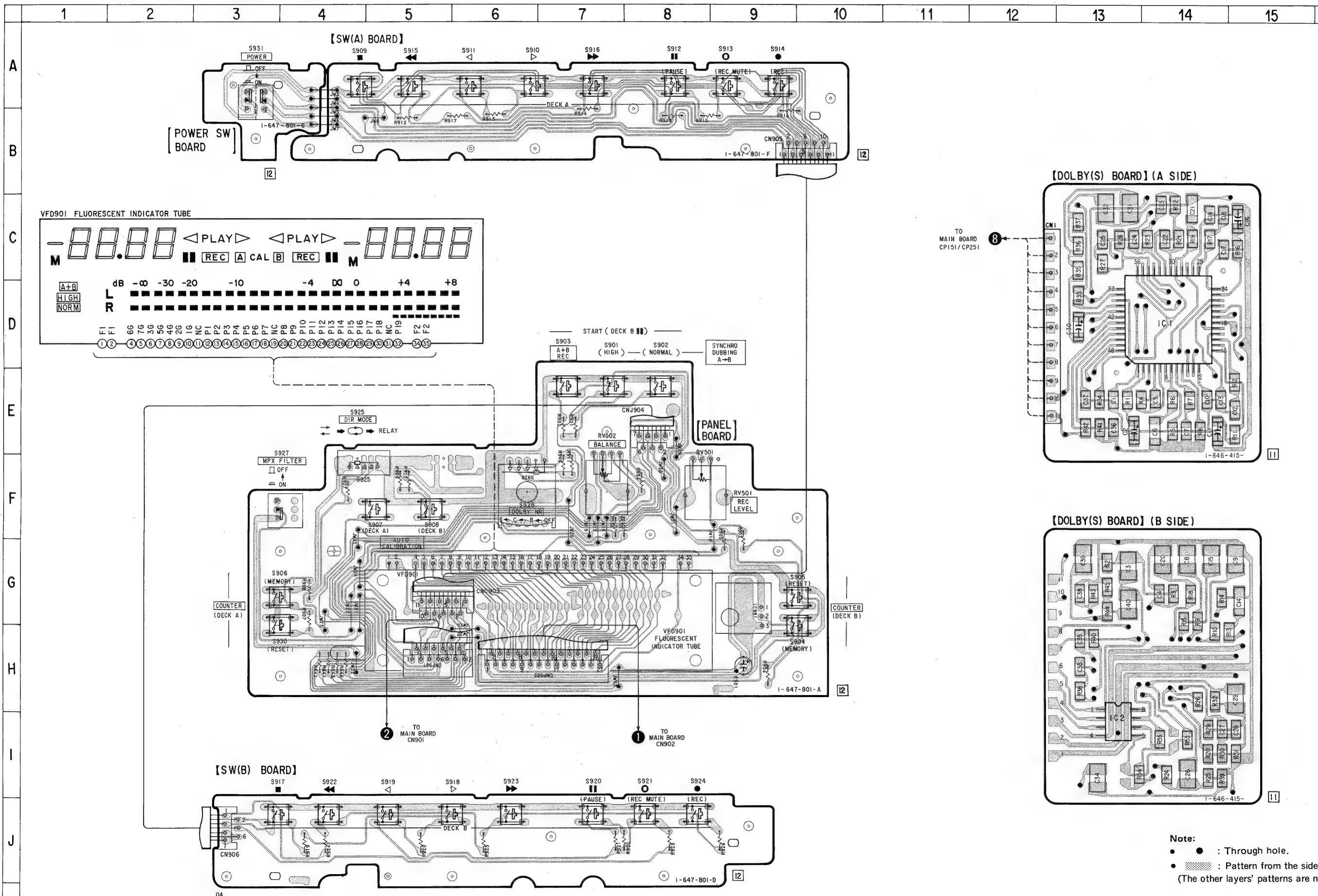
- Refer to Page 28 for IC Block Diagrams.



## 5-4. SCHEMATIC DIAGRAM —PANEL SECTION— • Refer to Page 28 for IC Block Diagrams.



## **5-5. PRINTED WIRING BOARDS —PANEL SECTION—**

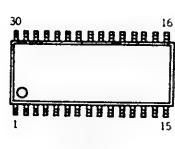


**Note:**

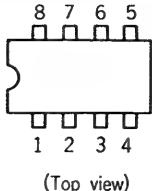
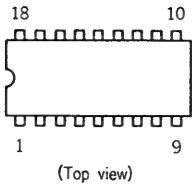
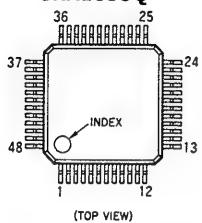
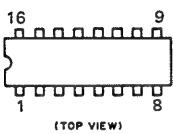
- : Through hole.
- : Pattern from the side which enable seeing.  
(The other layers' patterns are not indicated.)

## 5-6. SEMICONDUCTOR LEAD LAYOUTS

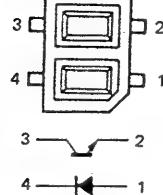
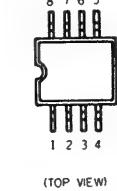
CXA1332M



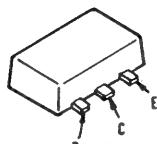
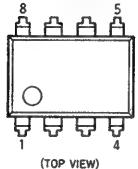
M5218AP

 $\mu$ PC1297CA2SB1116A-L  
2SD1387-3CXA1417Q  
CXA1599QCXA1578P  
HD14053BFP  
MC14052BCP  
M5283P  
UP14053BC

NJL5165K-B (H1)

 $\mu$ PC4570G2

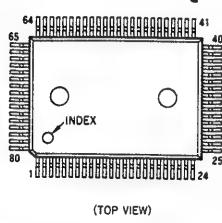
2SD1622-S

NJM4580E-D  
 $\mu$ PC4558C

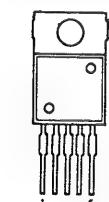
PST600E-T



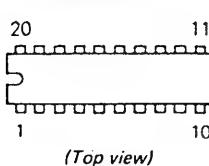
CXP82316-019Q



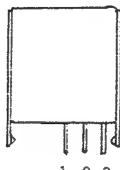
MC14052BF



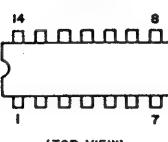
M50255P



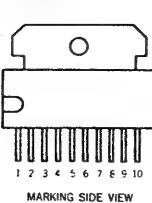
SBX1610-59



SN74HC04N



TA7272P



DTA114ES

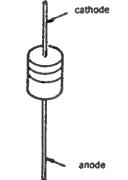


HZA6A1L

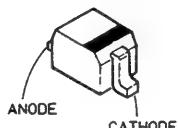
HZS9A2L

UZL-7H1

UZL-7L2



MA110



DTC144ES



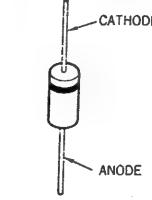
letter side

ANODE

CATHODE

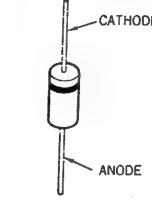
2SB1094-LK

2SD1406-YGR



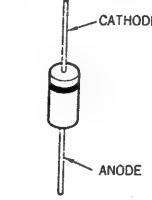
2SA1162-G

2SA1235-F



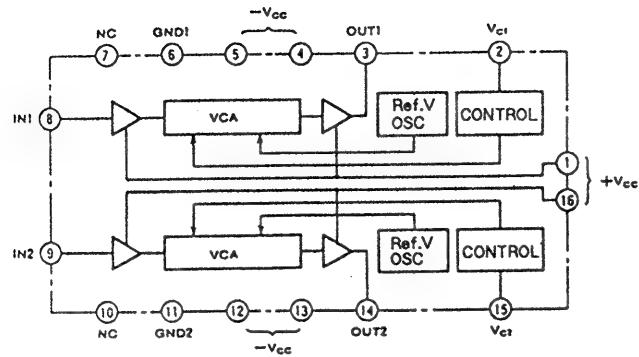
1N4148M

10E2N

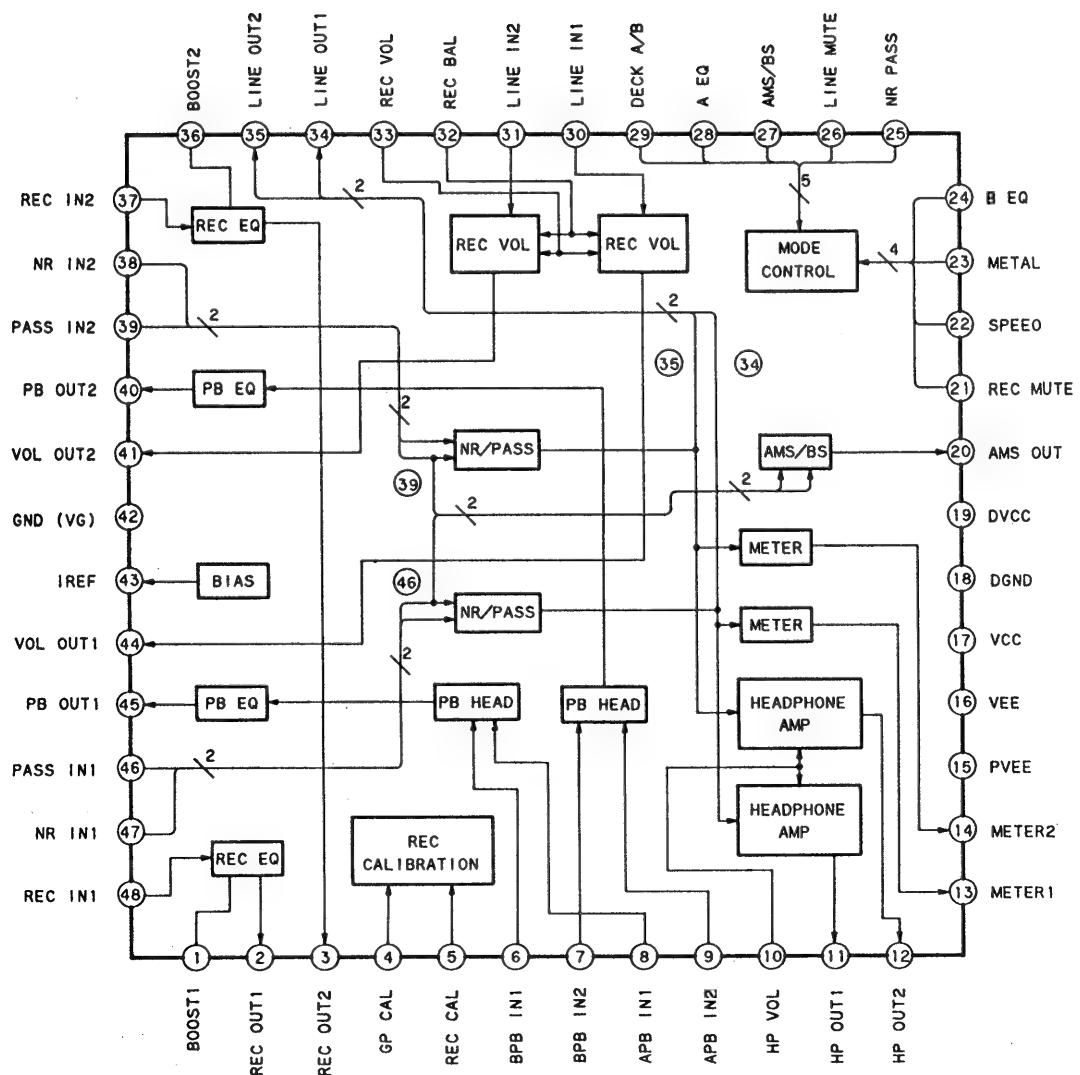


• IC Block Diagrams

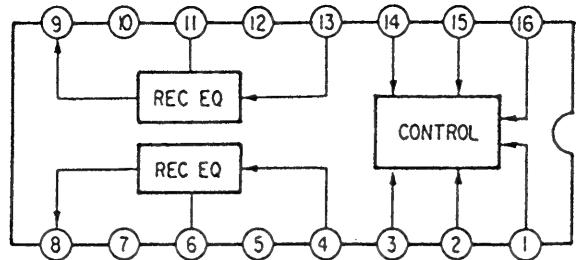
IC511 M5283P



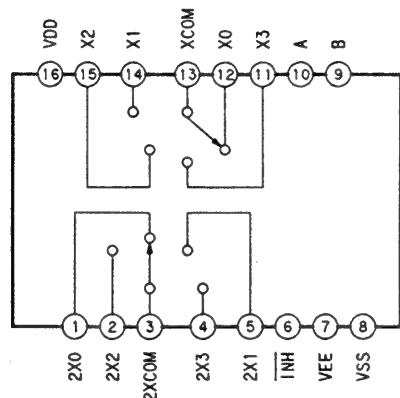
IC502 CXA1599Q



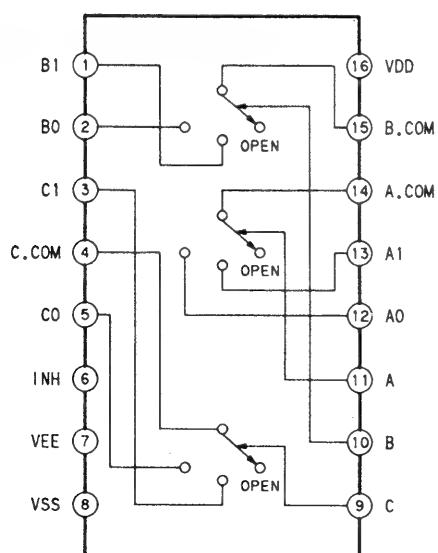
**IC509 CXA1578P**



**IC803, 805 MC14052BCP**



**IC151, 251, 507, 508 MC14053BCP**



## SECTION 6

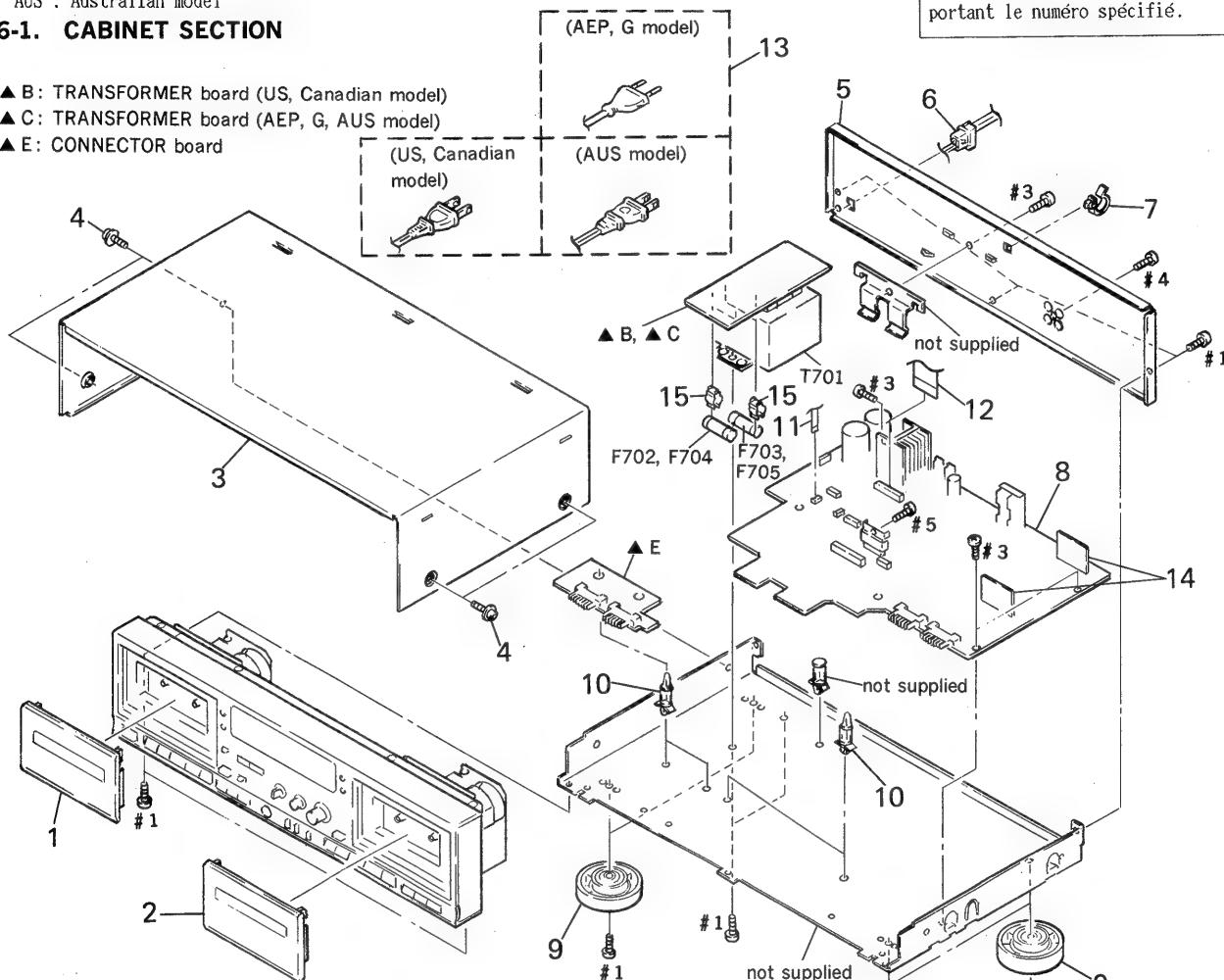
### EXPLODED VIEWS

**NOTE:**

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Abbreviations  
G : German model  
AUS : Australian model

#### 6-1. CABINET SECTION

▲ B : TRANSFORMER board (US, Canadian model)  
 ▲ C : TRANSFORMER board (AEP, G, AUS model)  
 ▲ E : CONNECTOR board



Ref. No.	Part No.	Description	Remark
1	X-3366-515-1	LID ASSY (A), CASSETTE (WR701ES)	
1	X-3366-517-1	LID ASSY (A), CASSETTE (WR735S)	
2	X-3366-516-1	LID ASSY (B), CASSETTE (WR701ES)	
2	X-3366-518-1	LID ASSY (B), CASSETTE (WR735S)	
* 3	4-929-294-42	CASE	
4	3-704-366-01	SCREW (CASE) (M3X8)	
* 5	3-387-824-01	PANEL, BACK (WR701ES)	
* 5	3-387-824-11	PANEL, BACK (WR735S:Canadian)	
* 5	3-387-824-21	PANEL, BACK (WR735S:AEP, G)	
* 5	3-387-824-31	PANEL, BACK (WR735S:AUS)	
* 6	3-703-244-00	BUSHING (2104), CORD (WR735S)	
* 6	3-703-571-11	BUSHING (S) (4516), CORD (WR701ES)	
* 7	4-949-235-01	HOOK (WR735S:Canadian, AEP, G, WR701ES)	
* 8	A-2007-028-A	MAIN BOARD, COMPLETE (WR735S:Canadian, WR701ES)	
* 8	A-2007-057-A	MAIN BOARD, COMPLETE (WR735S:AEP, G, AUS)	
9	4-943-148-32	FOOT (F58175SW) (WR735S:Canadian)	
9	4-943-148-42	FOOT (F58175SW) (WR735S:AEP, G, AUS, WR701ES)	

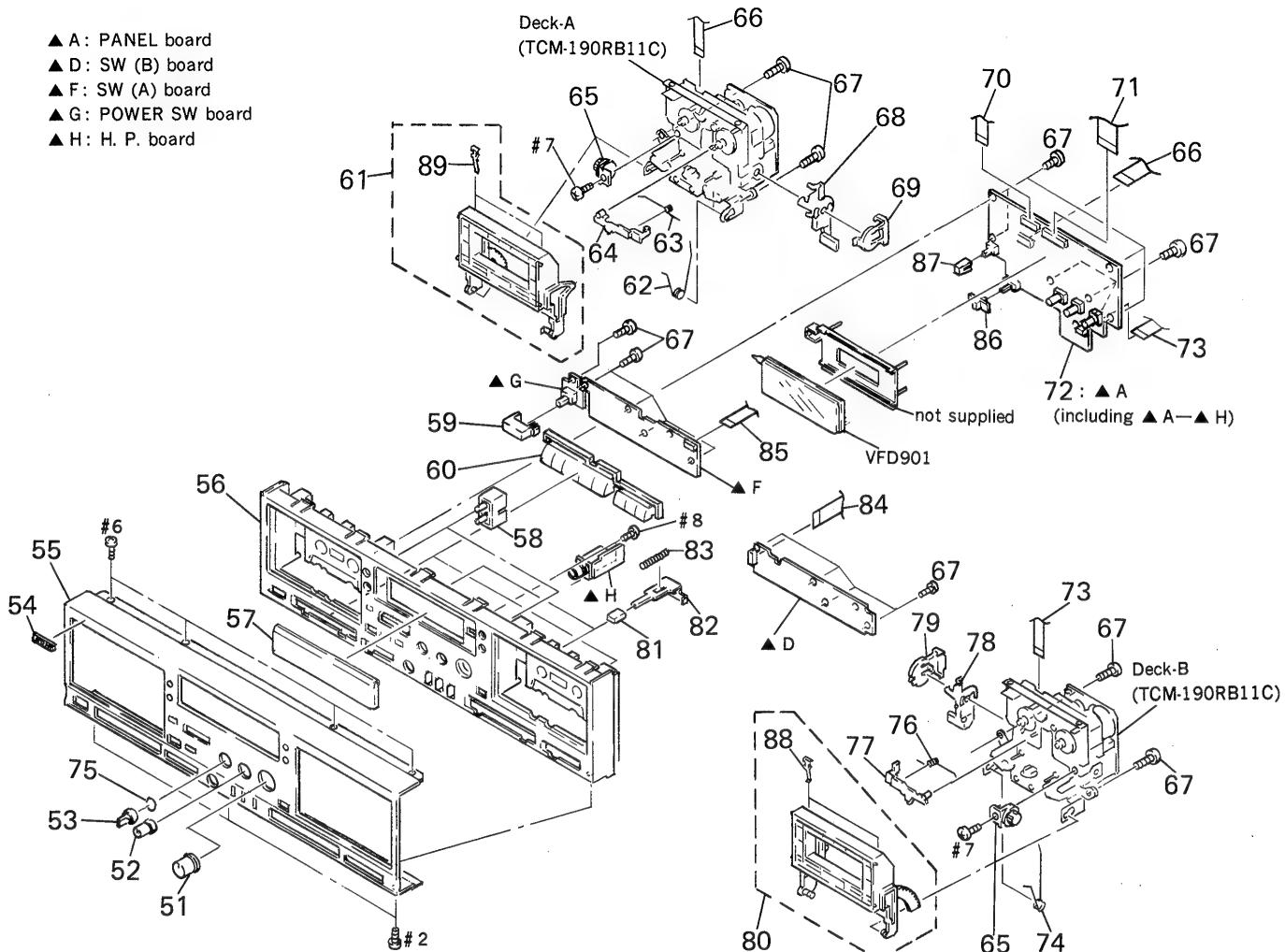
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts Example : KNOB, BALANCE (WHITE)...(RED)

The components identified by mark **▲** or dotted line with mark **△** are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque **▲** sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
* 10	3-346-265-11	HOLDER, PC BOARD	
11	1-575-730-11	WIRE, FLAT TYPE (5 CORE)	
12	1-590-217-11	WIRE, FLAT TYPE (20 CORE)	
△13	1-558-945-21	CORD, POWER (POLAR. SPT-1) (WR735S:Canadian, WR701ES)	
△13	1-575-651-21	CORD, POWER (WR735S:AEP, G)	
△13	1-696-845-11	CORD, POWER (WR735S:AUS)	
* 14	A-2006-954-A	DOLBY (S) BOARD, COMPLETE	
15	1-533-183-11	HOLDER, FUSE	
△F702	1-532-259-00	FUSE, TIME-LAG (T1.6AL) (WR735S:AEP, G, AUS)	
△F703	1-532-259-00	FUSE, TIME-LAG (T1.6AL) (WR735S:AEP, G, AUS)	
△F704	1-532-743-11	FUSE, GLASS TUBE (2A/125V) (WR735S:Canadian, WR701ES)	
△F705	1-532-743-11	FUSE, GLASS TUBE (2A/125V) (WR735S:Canadian, WR701ES)	
△T701	1-450-869-11	TRANSFORMER, POWER (WR735S:Canadian, WR701ES)	
△T701	1-450-870-11	TRANSFORMER, POWER (WR735S:AEP, G, AUS)	

## 6-2. FRONT PANEL SECTION



Ref. No. Part No. Description Remark

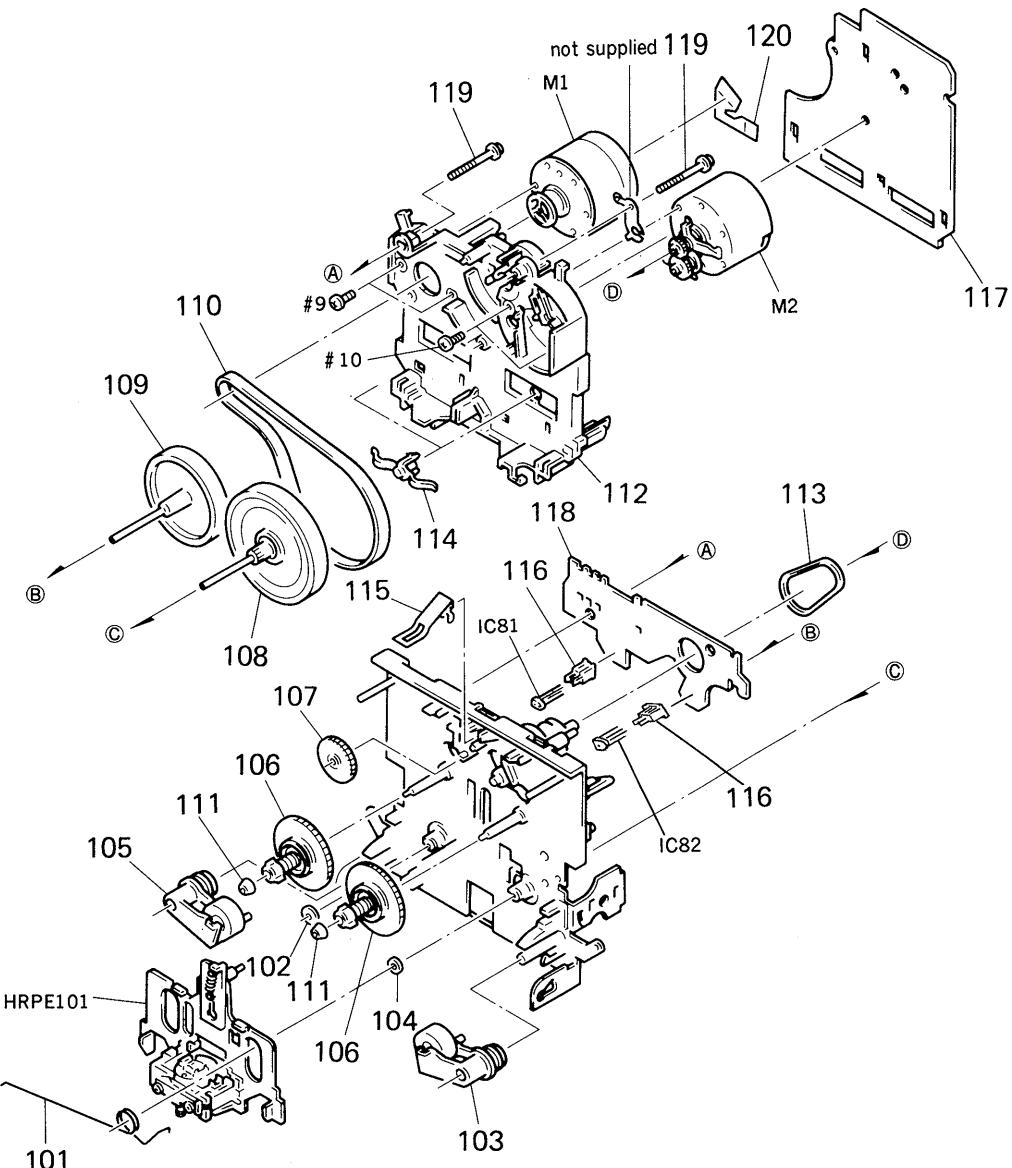
51	3-377-334-01	KNOB (REC)	
52	3-367-431-01	KNOB (BAL)	
53	3-380-950-01	KNOB (VOL)	
54	4-942-568-01	EMBLEM (NO. 5), SONY	
55	3-387-820-11	PANEL, FRONT (WR735S:Canadian)	
55	3-387-820-21	PANEL, FRONT (WR735S:AEP, G, AUS)	
56	X-3366-923-1	PANEL (BASE) ASSY	
57	3-387-823-01	WINDOW (M) (WR735S:AEP, G, AUS)	
57	3-387-823-11	WINDOW (M) (WR735S:Canadian)	
58	3-377-329-11	BUTTON (COUNTER)	
59	3-354-932-01	BUTTON (POWER)	
60	3-387-825-01	BUTTON (CONTROL)	
61	X-3340-195-1	HOLDER (R) ASSY, CASSETTE	
62	3-354-960-01	SPRING (LOADING R), TORSION	
63	3-354-962-01	SPRING (EJ SAFETY SPRING R)	
64	3-354-956-01	LEVER (EJ SAFETY LEVER R)	
65	3-354-963-01	DAMPER	
66	1-575-905-11	WIRE, FLAT TYPE (9 CORE)	
67	4-951-620-01	SCREW (2.6X8), +BVTP	
* 68	3-354-954-01	LEVER (LOCK LEVER R)	
69	3-354-957-01	JOINT (LOCK LEVER)	
70	1-690-589-31	WIRE, FLAT TYPE (13 CORE)	
70	3-354-963-01	DAMPER	

Ref. No. Part No. Description Remark

71	1-690-729-11	WIRE, FLAT TYPE (27 CORE)	
* 72	A-2007-029-A	PANEL BOARD, COMPLETE (WR735S:Canadian, WR701ES)	
* 72	A-2007-030-A	PANEL BOARD, COMPLETE (WR735S:AEP, G, AUS)	
73	1-575-905-11	WIRE, FLAT TYPE (9 CORE)	
74	3-354-959-01	SPRING (LOADING L), TORSION	
75	3-356-935-01	SPRING	
76	3-354-961-01	SPRING (EJ SAFETY SPRING L)	
77	3-354-955-01	LEVER (EJ SAFETY LEVER L)	
* 78	3-354-953-01	LEVER (LOCK LEVER L)	
79	3-354-957-01	JOINT (LOCK LEVER)	
80	X-3340-194-1	HOLDER (L) ASSY, CASSETTE	
81	3-377-328-01	BUTTON (EJECT)	
82	3-387-822-01	SLIDER (EJECT)	
83	3-382-382-01	SPRING, COMPRESSION	
84	1-590-241-11	WIRE, FLAT TYPE (7 CORE)	
85	1-590-241-11	WIRE, FLAT TYPE (11 CORE)	
86	4-922-518-01	KNOB (TIMER)	
87	3-380-952-01	BUTTON	
88	3-308-823-11	SPRING	
89	3-308-823-11	SPRING	

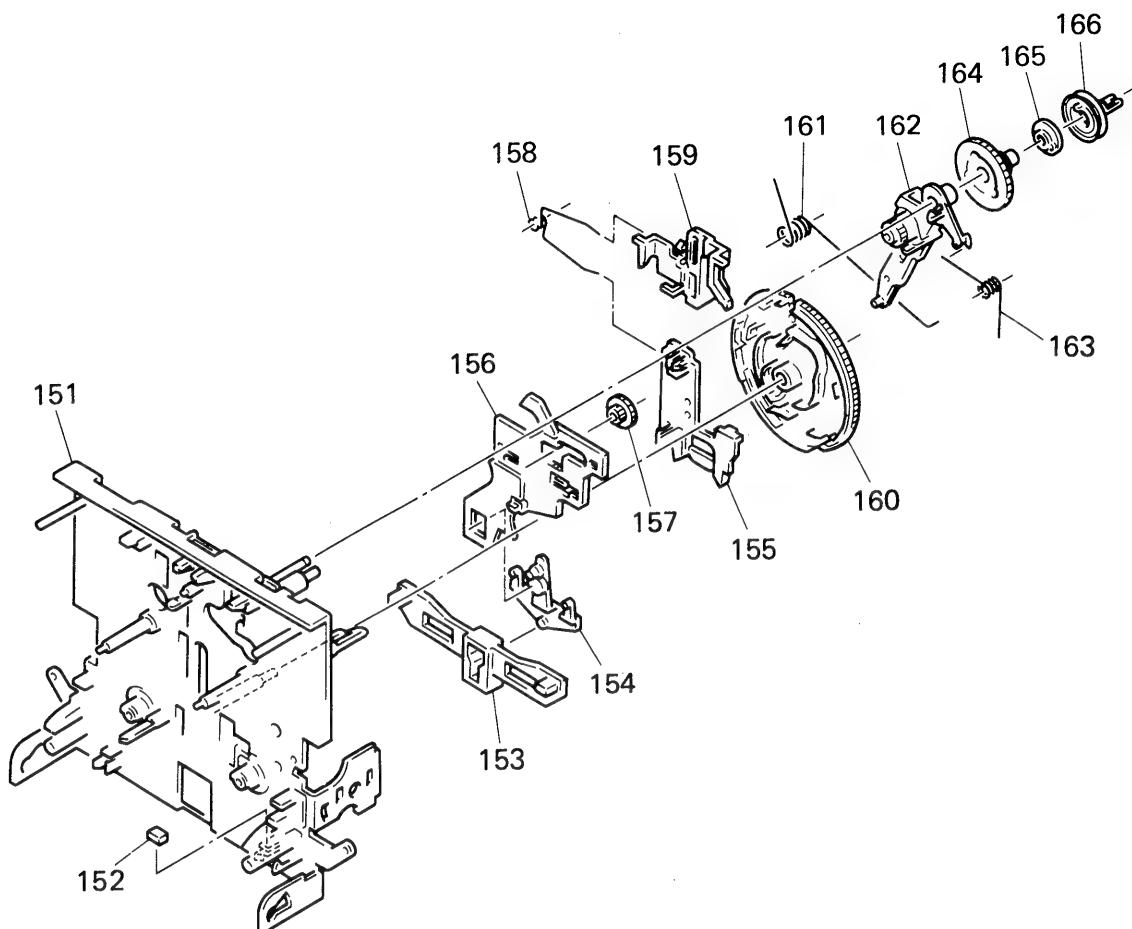
VFD901 1-517-162-11 INDICATOR TUBE, FLUORESCENT

**6-3. MECHANISM SECTION (1)**  
**(DECK A, B : TCM-190RB11C)**



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	3-359-455-01	SPRING, TORSION		114	3-575-321-00	RETAINER, THRUST, CAPSTAN	
102	3-356-714-01	WASHER		115	3-359-430-01	SPRING (CASSETTE RETAINER), LEAF	
103	X-3359-408-1	LEVER (PINCH LEVER FWD) ASSY		116	3-343-419-01	HOLDER (S SENSOR A)	
104	3-356-713-01	WASHER		* 117	A-2006-401-A MD HX BOARD, COMPLETE		
105	X-3359-409-1	LEVER (PINCH LEVER REV) ASSY		118	1-634-841-14 SW-A BOARD		
106	X-3362-078-1	TABLE ASSY (B), REEL		119	3-359-414-01	SCREW (+PTPW 2X23)	
107	3-359-424-01	GEAR (REV GEAR)		120	1-638-983-11	MOTOR FLEXIBLE BOARD	
108	X-3359-406-1	FLYWHEEL (FWD) ASSY		HRPE101	A-2003-838-F	DECK ASSY, HEAD (RECORD/PLAYBACK/ERASE)	
109	X-3359-410-1	FLYWHEEL (REV) ASSY		IC81	8-719-710-03	PHOTO REFLECTOR NJL5165K-B (H1)	
110	3-359-417-01	BELT (FLAT), CAPSTAN		IC82	8-719-710-03	PHOTO REFLECTOR NJL5165K-B (H1)	
111	3-362-308-01	CAP (REEL)		M1	X-3365-377-1	MOTOR (CAPSTAN) ASSY	
* 112	3-359-436-01	BASE (THRUST RETAINER), FITTING		M2	X-3363-501-1	MOTOR (REEL) ASSY	
113	3-359-466-01	BELT (FR), SQUARE					

**6-4. MECHANISM SECTION (2)**  
**(DECK A, B : TCM-190RB11C)**



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	X-3359-415-1	CHASSIS ASSY, MECHANICAL		159	3-359-429-01	SLIDER (BRAKE PLATE)	
152	3-359-469-01	SPACER		160	3-359-420-01	GEAR (CAM GEAR)	
* 153	3-359-425-01	SLIDER (REVERSE SLIDER)		161	3-359-456-01	SPRING (TRIGGER SPRING), TORSION	
154	3-359-426-01	LEVER (REVERSE LEVER)		162	X-3359-405-1	LEVER (FR ARM) ASSY	
* 155	3-359-427-01	SLIDER (REVERSE SLIDER)		163	3-359-453-01	SPRING (FR ARM), TORSION	
* 156	3-359-415-01	SLIDER (TRIGGER SLIDER)		164	3-359-419-01	GEAR (FR GEAR)	
157	3-359-448-01	GEAR (TRIGGER)		165	3-359-421-01	CLUTCH (REEL DISK)	
158	3-359-454-01	SPRING, TORSION		166	3-359-418-01	PULLEY (FR PULLEY)	

# SECTION 7

## ELECTRICAL PARTS LIST

## NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS  
All resistors are in ohms.  
METAL: Metal-film resistor.  
METAL OXIDE: Metal oxide-film resistor.  
F: nonflammable

- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS  
In each case, u:μ, for example:  
uA .. : μA.. uPA.. : μPA..  
uPB.. : μPB.. uPC.. : μPC.. uPD.. : μPD..
- CAPACITORS  
uF: μF
- COILS  
uH: μH

When indicating parts by reference number, please include the board.

The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- Abbreviations  
G : German model  
AUS : Australian model

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark				
*	A-2006-954-A	DOLBY (S) BOARD, COMPLETE		C36	1-165-319-11	CERAMIC CHIP	0.1uF 50V				
*****											
		< CAPACITOR >		C37	1-164-222-11	CERAMIC CHIP	0.22uF 25V				
C1	1-164-222-11	CERAMIC CHIP	0.22uF 25V	C38	1-163-024-00	CERAMIC CHIP	0.018uF 10% 50V				
C2	1-135-177-21	TANTALUM CHIP	1uF 20%	C39	1-104-555-11	FILM CHIP	0.022uF 5% 16V				
C3	1-104-558-91	FILM CHIP	0.039uF 5% 16V	C40	1-104-563-11	FILM CHIP	0.1uF 5% 16V				
C4	1-163-007-11	CERAMIC CHIP	680PF 10% 50V	< CONNECTOR >							
C5	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V	* CN1	1-537-473-11	TERMINAL (LEAD PIN)					
C6	1-164-717-11	CERAMIC CHIP	0.0082uF 5% 50V	< IC >							
C7	1-164-222-11	CERAMIC CHIP	0.22uF 25V	IC1	8-752-056-51	IC CXA1417Q					
C8	1-104-562-11	FILM CHIP	0.082uF 5% 16V	IC2	8-759-711-85	IC NJM4580E-D					
C9	1-104-553-11	FILM CHIP	0.015uF 5% 16V	< RESISTOR >							
C10	1-165-319-11	CERAMIC CHIP	0.1uF 50V	R1	1-216-013-00	METAL CHIP	33 5% 1/10W				
C11	1-135-145-11	TANTALUM CHIP	0.47uF 10% 35V	R2	1-216-675-11	METAL CHIP	10K 0.5% 1/10W				
C12	1-164-222-11	CERAMIC CHIP	0.22uF 25V	R3	1-216-681-11	METAL CHIP	18K 0.5% 1/10W				
C13	1-165-319-11	CERAMIC CHIP	0.1uF 50V	R4	1-218-774-11	METAL CHIP	820K 0.50% 1/10W				
C14	1-162-568-11	CERAMIC CHIP	0.33uF 10% 16V	R5	1-216-668-11	METAL CHIP	5.1K 0.5% 1/10W				
C15	1-104-562-11	FILM CHIP	0.082uF 5% 16V	R6	1-216-656-11	METAL CHIP	1.6K 0.5% 1/10W				
C16	1-135-145-11	TANTALUM CHIP	0.47uF 10% 35V	R7	1-216-657-11	METAL CHIP	1.8K 0.5% 1/10W				
C17	1-165-319-11	CERAMIC CHIP	0.1uF 50V	R8	1-216-065-00	METAL CHIP	4.7K 5% 1/10W				
C18	1-164-222-11	CERAMIC CHIP	0.22uF 25V	R9	1-216-058-00	METAL GLAZE	2.4K 5% 1/10W				
C19	1-163-035-00	CERAMIC CHIP	0.047uF 50V	R10	1-216-654-11	METAL CHIP	1.3K 0.5% 1/10W				
C20	1-104-553-11	FILM CHIP	0.015uF 5% 16V	R11	1-216-013-00	METAL CHIP	33 5% 1/10W				
C21	1-164-717-11	CERAMIC CHIP	0.0082uF 5% 50V	R12	1-216-017-00	METAL CHIP	47 5% 1/10W				
C22	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V	R13	1-216-051-00	METAL CHIP	1.2K 5% 1/10W				
C23	1-164-161-11	CERAMIC CHIP	0.0022uF 10% 100V	R14	1-216-065-00	METAL CHIP	4.7K 5% 1/10W				
C24	1-163-005-11	CERAMIC CHIP	470PF 10% 50V	R15	1-216-058-00	METAL GLAZE	2.4K 5% 1/10W				
C25	1-163-012-00	CERAMIC CHIP	0.0018uF 10% 50V	R16	1-216-013-00	METAL CHIP	33 5% 1/10W				
C26	1-104-558-91	FILM CHIP	0.039uF 5% 16V	R17	1-216-017-00	METAL CHIP	47 5% 1/10W				
C27	1-163-012-00	CERAMIC CHIP	0.0018uF 10% 50V	R18	1-216-055-00	METAL CHIP	1.8K 5% 1/10W				
C28	1-163-012-00	CERAMIC CHIP	0.0018uF 10% 50V	R19	1-216-656-11	METAL CHIP	1.6K 0.5% 1/10W				
C29	1-104-563-11	FILM CHIP	0.1uF 5% 16V	R20	1-216-668-11	METAL CHIP	5.1K 0.5% 1/10W				
C30	1-135-145-11	TANTALUM CHIP	0.47uF 10% 35V	R21	1-218-774-11	METAL CHIP	820K 0.50% 1/10W				
C31	1-104-555-11	FILM CHIP	0.022uF 5% 16V	R22	1-216-655-11	METAL CHIP	1.5K 0.5% 1/10W				
C32	1-104-563-11	FILM CHIP	0.1uF 5% 16V	R23	1-216-678-11	METAL CHIP	13K 0.5% 1/10W				
C33	1-163-024-00	CERAMIC CHIP	0.018uF 10% 50V	R24	1-216-673-11	METAL CHIP	8.2K 0.5% 1/10W				
C34	1-104-563-11	FILM CHIP	0.1uF 5% 16V	R25	1-216-675-11	METAL CHIP	10K 0.5% 1/10W				
C35	1-163-012-00	CERAMIC CHIP	0.0018uF 10% 50V								

**DOLBY (S)****MAIN**

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark					
R26	1-216-676-11	METAL CHIP	11K	0.5%	1/10W	C129	1-124-925-11	ELECT	2.2uF	20%	100V			
R27	1-216-668-11	METAL CHIP	5.1K	0.5%	1/10W	C130	1-124-907-11	ELECT	10uF	20%	50V			
R28	1-216-697-11	METAL CHIP	82K	0.5%	1/10W	C132	1-164-159-11	CERAMIC	0.1uF		50V			
R29	1-216-668-11	METAL CHIP	5.1K	0.5%	1/10W	C135	1-162-294-31	CERAMIC	0.001uF	10%	50V			
R30	1-216-660-11	METAL CHIP	2.4K	0.5%	1/10W	C136	1-162-294-31	CERAMIC	0.001uF	10%	50V			
R31	1-216-680-11	METAL CHIP	16K	0.5%	1/10W	C141	1-162-283-31	CERAMIC	120PF	10%	50V			
R32	1-216-685-11	METAL CHIP	27K	0.5%	1/10W	C151	1-124-925-11	ELECT	2.2uF	20%	100V			
R33	1-216-080-00	METAL CHIP	20K	5%	1/10W	C152	1-124-907-11	ELECT	10uF	20%	50V			
R34	1-216-684-11	METAL CHIP	24K	0.5%	1/10W	C153	1-124-916-11	ELECT	22uF	20%	63V			
R35	1-216-084-00	METAL CHIP	30K	5%	1/10W	C154	1-124-907-11	ELECT	10uF	20%	50V			
R36	1-216-084-00	METAL CHIP	30K	5%	1/10W	C181	1-123-382-00	ELECT	3.3uF	20%	100V			
R37	1-216-074-00	METAL CHIP	11K	5%	1/10W	C183	1-124-902-00	ELECT	0.47uF	20%	50V			
R38	1-216-086-00	METAL GLAZE	36K	5%	1/10W	C184	1-124-903-11	ELECT	1uF	20%	50V			
R39	1-216-066-00	METAL CHIP	5.1K	5%	1/10W	C186	1-124-903-11	ELECT	1uF	20%	50V			
R40	1-216-084-00	METAL CHIP	30K	5%	1/10W	C187	1-124-903-11	ELECT	1uF	20%	50V			
R41	1-216-078-00	METAL GLAZE	16K	5%	1/10W	C202	1-130-476-00	MYLAR	0.0027uF	5%	50V			
R42	1-216-071-00	METAL CHIP	8.2K	5%	1/10W	C204	1-124-925-11	ELECT	2.2uF	20%	100V			
R43	1-216-081-00	METAL CHIP	22K	5%	1/10W	C205	1-130-475-00	MYLAR	0.0022uF	5%	50V			
R44	1-216-689-11	METAL CHIP	39K	0.5%	1/10W	C206	1-130-475-00	MYLAR	0.0022uF	5%	50V			
R45	1-216-689-11	METAL CHIP	39K	0.5%	1/10W	C207	1-136-174-00	FILM	0.56uF	5%	50V			
R53	1-216-058-00	METAL GLAZE	2.4K	5%	1/10W	C208	1-136-171-00	FILM	0.33uF	5%	50V			
R54	1-216-675-11	METAL CHIP	10K	0.5%	1/10W	C209	1-124-907-11	ELECT	10uF	20%	50V			
R55	1-216-666-11	METAL CHIP	4.3K	0.5%	1/10W	C210	1-124-925-11	ELECT	2.2uF	20%	100V			
*****														
*	A-2007-028-A	MAIN BOARD, COMPLETE	(WR735S:Canadian, WR701ES)			C221	1-124-903-11	ELECT	1uF	20%	50V			
*	A-2007-057-A	MAIN BOARD, COMPLETE	(WR735S:AEP, G, AUS)			C222	1-124-903-11	ELECT	1uF	20%	50V			
*****														
7-685-646-79 SCREW +BVTP 3X8 TYPE2 IT-3														
7-682-547-09 SCREW +BVTT 3X6 (S)														
< CAPACITOR >														
C102	1-130-476-00	MYLAR	0.0027uF	5%	50V	C223	1-124-443-00	ELECT	100uF	20%	10V			
C104	1-124-925-11	ELECT	2.2uF	20%	100V	C224	1-124-902-00	ELECT	0.47uF	20%	50V			
C105	1-130-475-00	MYLAR	0.0022uF	5%	50V	C225	1-164-159-11	CERAMIC	0.1uF		50V			
C106	1-130-475-00	MYLAR	0.0022uF	5%	50V	C226	1-123-382-00	ELECT	3.3uF	20%	100V			
C107	1-136-174-00	FILM	0.56uF	5%	50V	C227	1-124-927-11	ELECT	4.7uF	20%	100V			
C108	1-136-171-00	FILM	0.33uF	5%	50V	C228	1-124-925-11	ELECT	2.2uF	20%	100V			
C109	1-124-907-11	ELECT	10uF	20%	50V	C229	1-124-925-11	ELECT	2.2uF	20%	100V			
C110	1-124-925-11	ELECT	2.2uF	20%	100V	C230	1-124-907-11	ELECT	10uF	20%	50V			
C121	1-124-903-11	ELECT	1uF	20%	50V	C232	1-164-159-11	CERAMIC	0.1uF		50V			
C122	1-124-903-11	ELECT	1uF	20%	50V	C235	1-162-294-31	CERAMIC	0.001uF	10%	50V			
C123	1-124-443-00	ELECT	100uF	20%	10V	C236	1-162-294-31	CERAMIC	0.001uF	10%	50V			
C124	1-124-902-00	ELECT	0.47uF	20%	50V	C241	1-162-283-31	CERAMIC	120PF	10%	50V			
C125	1-164-159-11	CERAMIC	0.1uF		50V	C251	1-124-925-11	ELECT	2.2uF	20%	100V			
C126	1-123-382-00	ELECT	3.3uF	20%	100V	C252	1-124-907-11	ELECT	10uF	20%	50V			
C127	1-124-927-11	ELECT	4.7uF	20%	100V	C253	1-124-916-11	ELECT	22uF	20%	63V			
C128	1-124-925-11	ELECT	2.2uF	20%	100V	C254	1-124-907-11	ELECT	10uF	20%	50V			
						C281	1-123-382-00	ELECT	3.3uF	20%	100V			
						C283	1-124-902-00	ELECT	0.47uF	20%	50V			
						C284	1-124-903-11	ELECT	1uF	20%	50V			
						C286	1-124-903-11	ELECT	1uF	20%	50V			
						C287	1-124-903-11	ELECT	1uF	20%	50V			
						C501	1-124-443-00	ELECT	100uF	20%	10V			
						C502	1-124-443-00	ELECT	100uF	20%	10V			
						C503	1-124-903-11	ELECT	1uF	20%	50V			

**MAIN**

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark
C521	1-126-916-11	ELECT	1000uF	20%	6.3V	CN902	1-750-432-11	CONNECTOR, FFC/FPC 27P	
C522	1-124-925-11	ELECT	2.2uF	20%	100V	CN903	1-750-410-11	CONNECTOR, FFC/FPC 5P	
C523	1-124-902-00	ELECT	0.47uF	20%	50V	CN904	1-750-410-11	CONNECTOR, FFC/FPC 5P	
C524	1-124-916-11	ELECT	22uF	20%	63V	CNP521	1-506-468-11	PIN, CONNECTOR 3P	
C526	1-124-443-00	ELECT	100uF	20%	10V	CNP702	1-564-510-11	PLUG, CONNECTOR 7P	
C527	1-124-443-00	ELECT	100uF	20%	10V	< COMPOSITION CIRCUIT BLOCK >			
C528	1-124-902-00	ELECT	0.47uF	20%	50V	CP571	1-232-946-11	COMPOSITION CIRCUIT BLOCK	
C551	1-124-907-11	ELECT	10uF	20%	50V	CP581	1-232-946-11	COMPOSITION CIRCUIT BLOCK	
C552	1-124-907-11	ELECT	10uF	20%	50V	< DIODE >			
C553	1-124-927-11	ELECT	4.7uF	20%	100V	D121	8-719-987-63	DIODE 1N4148M	
C554	1-124-927-11	ELECT	4.7uF	20%	100V	D221	8-719-987-63	DIODE 1N4148M	
C561	1-136-161-00	FILM	0.047uF	5%	50V	D502	8-719-987-63	DIODE 1N4148M	
C562	1-136-164-00	FILM	0.082uF	5%	50V	D505	8-719-933-54	DIODE HZS9A2L	
C563	1-130-476-00	MYLAR	0.0027uF	5%	50V	D551-554			
C564	1-130-474-00	MYLAR	0.0018uF	5%	50V	8-719-200-77	DIODE 10E2N		
C592	1-126-103-11	ELECT	470uF	20%	16V	D561	8-719-987-63	DIODE 1N4148M	
C621	1-124-907-11	ELECT	10uF	20%	50V	D562	8-719-987-63	DIODE 1N4148M	
C631	1-124-907-11	ELECT	10uF	20%	50V	D601	8-719-987-63	DIODE 1N4148M	
C651	1-124-916-11	ELECT	22uF	20%	63V	D611	8-719-987-63	DIODE 1N4148M	
C702	1-124-925-11	ELECT	2.2uF	20%	100V	D702-708			
C703	1-124-772-11	ELECT	10000uF	20%	25V	8-719-200-77	DIODE 10E2N		
C704	1-124-772-11	ELECT	10000uF	20%	25V	D709	8-719-987-63	DIODE 1N4148M	
C705	1-124-907-11	ELECT	10uF	20%	50V	D710	8-719-000-78	DIODE UZL-7L2	
C706	1-124-472-11	ELECT	470uF	20%	10V	D711	8-719-933-33	DIODE HZS6A1L	
C707	1-124-907-11	ELECT	10uF	20%	50V	D712	8-719-933-33	DIODE HZS6A1L	
C708	1-126-929-11	ELECT	4700uF	20%	10V	D713	8-719-987-63	DIODE 1N4148M	
C709	1-126-926-11	ELECT	1000uF	20%	10V	D714	8-719-987-63	DIODE 1N4148M	
C710	1-124-122-11	ELECT	100uF	20%	50V	D715	8-719-000-93	DIODE UZL-7H1	
C711	1-124-122-11	ELECT	100uF	20%	50V	D716	8-719-933-33	DIODE HZS6A1L	
C712	1-124-927-11	ELECT	4.7uF	20%	100V	D717	8-719-987-63	DIODE 1N4148M	
C801	1-124-472-11	ELECT	470uF	20%	10V	D801	8-719-987-63	DIODE 1N4148M	
C802-804	1-164-159-11	CERAMIC	0.1uF		50V	D802	8-719-987-63	DIODE 1N4148M	
C811	1-124-927-11	ELECT	4.7uF	20%	100V	< IC >			
C812	1-124-477-11	ELECT	47uF	20%	25V	IC151	8-759-140-53	IC UP14053BC	
C813	1-124-477-11	ELECT	47uF	20%	25V	IC251	8-759-140-53	IC UP14053BC	
C820	1-124-902-00	ELECT	0.47uF	20%	50V	IC501	8-752-055-10	IC CXA1332M	
C981	1-164-159-11	CERAMIC	0.1uF		50V	IC502	8-752-058-57	IC CXA1599Q	
C982	1-162-288-31	CERAMIC	330PF	10%	50V	IC503	8-759-145-58	IC uPC4558C	
C991	1-164-159-11	CERAMIC	0.1uF		50V	IC504	8-759-145-58	IC uPC4558C	
C992	1-162-288-31	CERAMIC	330PF	10%	50V	IC505	8-759-916-14	IC SN74HC04N	
< CONNECTOR >									
CN31A	1-750-425-11	CONNECTOR, FFC/FPC 20P				IC506	8-759-916-14	IC SN74HC04N	
* CN31B	1-580-784-11	CONNECTOR, BOARD TO BOARD				IC507	8-759-300-71	IC HD14053BFP	
* CN33B	1-580-784-11	CONNECTOR, BOARD TO BOARD				IC508	8-759-140-53	IC UP14053BC	
CN81A	1-750-414-11	CONNECTOR, FFC/FPC 9P				IC509	8-752-055-61	IC CXA1578P	
CN81B	1-750-414-11	CONNECTOR, FFC/FPC 9P				IC511	8-759-635-26	IC M5283P	
CN901	1-750-418-11	CONNECTOR, FFC/FPC 13P				IC702	8-759-634-51	IC M5218AP	

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
IC801	8-752-841-99	IC CXP82316-019Q		Q604	8-729-900-65	TRANSISTOR DTA144ES	
IC802	8-759-634-84	IC M50255P		Q605	8-729-900-61	TRANSISTOR DTA114ES	
IC803	8-759-000-48	IC MC14052BCP		Q611	8-729-900-89	TRANSISTOR DTC144ES	
IC804	8-759-207-05	IC TA7272P		Q612	8-729-900-89	TRANSISTOR DTC144ES	
IC805	8-759-009-06	IC MC14052BF		Q613	8-729-900-65	TRANSISTOR DTA144ES	
IC811	8-759-165-82	IC PST600E-T		Q614	8-729-900-65	TRANSISTOR DTA144ES	
		< JACK >		Q615	8-729-900-61	TRANSISTOR DTA114ES	
J501	1-565-258-11	JACK, PIN 4P (LINE)		Q621	8-729-821-04	TRANSISTOR 2SA1317-STU	
		< COIL >		Q631	8-729-821-04	TRANSISTOR 2SA1317-STU	
* L981	1-420-872-00	COIL, AIR CORE		Q651	8-729-900-61	TRANSISTOR DTA114ES	
* L991	1-420-872-00	COIL, AIR CORE		Q652	8-729-900-80	TRANSISTOR DTC114ES	
		< FILTER >		Q653	8-729-900-89	TRANSISTOR DTC144ES	
LPF101	1-231-388-00	FILTER, LOW PASS		Q702	8-729-620-05	TRANSISTOR 2SC2603-EF	
LPF201	1-231-388-00	FILTER, LOW PASS		Q703	8-729-231-60	TRANSISTOR 2SD1406-YGR	
		< TRANSISTOR >		Q704	8-729-900-74	TRANSISTOR DTC143TS	
Q101	8-729-900-80	TRANSISTOR DTC114ES		Q705	8-729-900-74	TRANSISTOR DTC143TS	
Q121	8-729-922-37	TRANSISTOR 2SD2144S-UWW		Q706	8-729-141-83	TRANSISTOR 2SB1094-LK	
Q122	8-729-620-05	TRANSISTOR 2SC2603-EF		Q707	8-729-231-60	TRANSISTOR 2SD1406-YGR	
Q141	8-729-620-05	TRANSISTOR 2SC2603-EF		Q708	8-729-821-04	TRANSISTOR 2SA1317-STU	
Q201	8-729-900-80	TRANSISTOR DTC114ES		Q709	8-729-140-04	TRANSISTOR 2SB1116A-L	
Q221	8-729-922-37	TRANSISTOR 2SD2144S-UWW		Q801	8-729-900-89	TRANSISTOR DTC144ES	
Q222	8-729-620-05	TRANSISTOR 2SC2603-EF		Q804	8-729-801-93	TRANSISTOR 2SD1387-3	
Q241	8-729-620-05	TRANSISTOR 2SC2603-EF		Q805	8-729-801-93	TRANSISTOR 2SD1387-3	
Q501	8-729-900-65	TRANSISTOR DTA144ES		Q806	8-729-900-80	TRANSISTOR DTC114ES	
Q504	8-729-900-65	TRANSISTOR DTA144ES		Q807	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q505	8-729-900-80	TRANSISTOR DTC114ES				< RESISTOR >	
Q506	8-729-900-80	TRANSISTOR DTC114ES		R101	1-249-461-11	CARBON 18K 5% 1/4W	
Q507	8-729-900-65	TRANSISTOR DTA144ES		R102	1-247-838-00	CARBON 2K 5% 1/4W	
Q521	8-729-821-04	TRANSISTOR 2SA1317-STU		R103	1-249-421-11	CARBON 2.2K 5% 1/4W	
Q522	8-729-620-05	TRANSISTOR 2SC2603-EF		R104	1-249-441-11	CARBON 100K 5% 1/4W	
Q523	8-729-900-80	TRANSISTOR DTC114ES		R105	1-249-425-11	CARBON 4.7K 5% 1/4W	
Q524	8-729-821-04	TRANSISTOR 2SA1317-STU		R106	1-247-840-00	CARBON 2.4K 5% 1/4W	
Q525	8-729-900-65	TRANSISTOR DTA144ES		R107	1-247-864-11	CARBON 24K 5% 1/4W	
Q526	8-729-900-65	TRANSISTOR DTA144ES		R108	1-249-414-11	CARBON 560 5% 1/4W	
Q541	8-729-900-65	TRANSISTOR DTA144ES		R109	1-249-437-11	CARBON 47K 5% 1/4W	
Q561	8-729-900-74	TRANSISTOR DTC143TS		R121	1-249-421-11	CARBON 2.2K 5% 1/4W	
Q562	8-729-900-74	TRANSISTOR DTC143TS		R122	1-249-421-11	CARBON 2.2K 5% 1/4W	
Q563	8-729-900-65	TRANSISTOR DTA144ES		R123	1-249-441-11	CARBON 100K 5% 1/4W	
Q564	8-729-900-65	TRANSISTOR DTA144ES		R124	1-247-713-11	CARBON 1K 5% 1/4W	
Q570	8-729-900-89	TRANSISTOR DTC144ES		R125	1-249-429-11	CARBON 10K 5% 1/4W	
Q571	8-729-900-65	TRANSISTOR DTA144ES		R126	1-247-887-00	CARBON 220K 5% 1/4W	
Q601	8-729-900-89	TRANSISTOR DTC144ES		R127	1-247-713-11	CARBON 1K 5% 1/4W	
Q602	8-729-900-89	TRANSISTOR DTC144ES		R128	1-249-437-11	CARBON 47K 5% 1/4W	
Q603	8-729-900-65	TRANSISTOR DTA144ES		R129	1-249-439-11	CARBON 68K 5% 1/4W	
				R130	1-249-409-11	CARBON 220 5% 1/4W	
				R131	1-249-441-11	CARBON 100K 5% 1/4W	
				R132	1-247-832-11	CARBON 1.1K 5% 1/4W	
				R133	1-249-441-11	CARBON 100K 5% 1/4W	

# MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R134	1-249-441-11	CARBON	100K 5% 1/4W	R258	1-249-437-11	CARBON	47K 5% 1/4W
R141	1-247-864-11	CARBON	24K 5% 1/4W	R271	1-249-424-11	CARBON	3.9K 5% 1/4W
R142	1-249-424-11	CARBON	3.9K 5% 1/4W	R272	1-247-854-11	CARBON	9.1K 5% 1/4W
R143	1-249-429-11	CARBON	10K 5% 1/4W	R281	1-249-425-11	CARBON	4.7K 5% 1/4W
R152	1-249-436-11	CARBON	39K 5% 1/4W	R283	1-247-852-11	CARBON	7.5K 5% 1/4W
R153	1-247-858-11	CARBON	13K 5% 1/4W	R286	1-249-426-11	CARBON	5.6K 5% 1/4W
R154	1-249-436-11	CARBON	39K 5% 1/4W	R287	1-249-426-11	CARBON	5.6K 5% 1/4W
R155	1-247-858-11	CARBON	13K 5% 1/4W	R501	1-249-417-11	CARBON	1K 5% 1/4W
R156	1-249-429-11	CARBON	10K 5% 1/4W	R502	1-215-455-00	METAL	27K 1% 1/6W
R157	1-247-862-11	CARBON	20K 5% 1/4W	R503-505		1-249-433-11	CARBON
R158	1-249-437-11	CARBON	47K 5% 1/4W				22K 5% 1/4W
R171	1-249-424-11	CARBON	3.9K 5% 1/4W	R507	1-249-433-11	CARBON	22K 5% 1/4W
R172	1-247-854-11	CARBON	9.1K 5% 1/4W	R508	1-249-429-11	CARBON	10K 5% 1/4W
R181	1-249-425-11	CARBON	4.7K 5% 1/4W	R509	1-249-405-11	CARBON	100 5% 1/4W
R183	1-247-852-11	CARBON	7.5K 5% 1/4W	R521	1-215-455-00	METAL	27K 1% 1/6W
R186	1-249-426-11	CARBON	5.6K 5% 1/4W	R522	1-212-863-00	FUSIBLE	18 5% 1/4W
R187	1-249-426-11	CARBON	5.6K 5% 1/4W	R523	1-249-430-11	CARBON	12K 5% 1/4W
R201	1-249-461-11	CARBON	18K 5% 1/4W	R524	1-249-432-11	CARBON	18K 5% 1/4W
R202	1-247-838-00	CARBON	2K 5% 1/4W	R525	1-249-405-11	CARBON	100 5% 1/4W
R203	1-249-421-11	CARBON	2.2K 5% 1/4W	R526	1-249-437-11	CARBON	47K 5% 1/4W
R204	1-249-441-11	CARBON	100K 5% 1/4W	R527	1-249-433-11	CARBON	22K 5% 1/4W
R205	1-249-425-11	CARBON	4.7K 5% 1/4W	R528	1-249-413-11	CARBON	470 5% 1/4W
R206	1-247-840-00	CARBON	2.4K 5% 1/4W	R529	1-249-429-11	CARBON	10K 5% 1/4W
R207	1-247-864-11	CARBON	24K 5% 1/4W	R530	1-247-872-11	CARBON	51K 5% 1/4W
R208	1-249-414-11	CARBON	560 5% 1/4W	R531	1-249-417-11	CARBON	1K 5% 1/4W
R209	1-249-437-11	CARBON	47K 5% 1/4W	R532	1-249-429-11	CARBON	10K 5% 1/4W
R221	1-249-421-11	CARBON	2.2K 5% 1/4W	R533	1-249-429-11	CARBON	10K 5% 1/4W
R222	1-249-421-11	CARBON	2.2K 5% 1/4W	R543	1-249-429-11	CARBON	10K 5% 1/4W
R223	1-249-441-11	CARBON	100K 5% 1/4W	R544	1-249-437-11	CARBON	47K 5% 1/4W
R224	1-247-713-11	CARBON	1K 5% 1/4W	R545	1-249-429-11	CARBON	10K 5% 1/4W
R225	1-249-429-11	CARBON	10K 5% 1/4W	R551	1-249-433-11	CARBON	22K 5% 1/4W
R226	1-247-887-00	CARBON	220K 5% 1/4W	R552	1-249-433-11	CARBON	22K 5% 1/4W
R227	1-247-713-11	CARBON	1K 5% 1/4W	R561	1-247-846-11	CARBON	4.3K 5% 1/4W
R228	1-249-437-11	CARBON	47K 5% 1/4W	R562	1-249-441-11	CARBON	100K 5% 1/4W
R229	1-249-439-11	CARBON	68K 5% 1/4W	R563	1-249-441-11	CARBON	100K 5% 1/4W
R230	1-249-409-11	CARBON	220 5% 1/4W	R564	1-249-436-11	CARBON	39K 5% 1/4W
R231	1-249-441-11	CARBON	100K 5% 1/4W	R565	1-249-433-11	CARBON	22K 5% 1/4W
R232	1-247-832-11	CARBON	1.1K 5% 1/4W	R566	1-249-426-11	CARBON	5.6K 5% 1/4W
R233	1-249-441-11	CARBON	100K 5% 1/4W	R570	1-247-868-11	CARBON	36K 5% 1/4W
R234	1-249-441-11	CARBON	100K 5% 1/4W	R571-574		1-249-434-11	CARBON
R241	1-247-864-11	CARBON	24K 5% 1/4W	R575	1-247-874-11	CARBON	27K 5% 1/4W
R242	1-249-424-11	CARBON	3.9K 5% 1/4W				62K 5% 1/4W
R243	1-249-429-11	CARBON	10K 5% 1/4W	R576	1-247-866-11	CARBON	30K 5% 1/4W
R252	1-249-436-11	CARBON	39K 5% 1/4W	R577	1-249-431-11	CARBON	15K 5% 1/4W
R253	1-247-858-11	CARBON	13K 5% 1/4W	R578	1-247-852-11	CARBON	7.5K 5% 1/4W
R254	1-249-436-11	CARBON	39K 5% 1/4W	R579	1-249-421-11	CARBON	2.2K 5% 1/4W
R255	1-247-858-11	CARBON	13K 5% 1/4W	R581-584		1-249-434-11	CARBON
R256	1-249-429-11	CARBON	10K 5% 1/4W				27K 5% 1/4W
R257	1-247-862-11	CARBON	20K 5% 1/4W	R585	1-247-874-11	CARBON	62K 5% 1/4W

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R586	1-247-866-11	CARBON	30K 5% 1/4W	R810	1-247-858-11	CARBON	13K 5% 1/4W
R587	1-249-431-11	CARBON	15K 5% 1/4W	R812	1-249-429-11	CARBON	10K 5% 1/4W
R588	1-247-852-11	CARBON	7.5K 5% 1/4W	R813	1-247-852-11	CARBON	7.5K 5% 1/4W
R589	1-249-421-11	CARBON	2.2K 5% 1/4W	R814	1-249-429-11	CARBON	10K 5% 1/4W
R601	1-247-862-11	CARBON	20K 5% 1/4W	R815	1-247-852-11	CARBON	7.5K 5% 1/4W
R602	1-247-850-11	CARBON	6.2K 5% 1/4W	R816	1-249-430-11	CARBON	12K 5% 1/4W
R604	1-249-429-11	CARBON	10K 5% 1/4W	R820	1-247-852-11	CARBON	7.5K 5% 1/4W
R605	1-249-429-11	CARBON	10K 5% 1/4W	R821	1-249-429-11	CARBON	10K 5% 1/4W
R611	1-247-862-11	CARBON	20K 5% 1/4W	R823	1-249-437-11	CARBON	47K 5% 1/4W
R612	1-247-850-11	CARBON	6.2K 5% 1/4W	R824	1-249-429-11	CARBON	10K 5% 1/4W
R614	1-249-429-11	CARBON	10K 5% 1/4W	R825	1-249-430-11	CARBON	12K 5% 1/4W
R615	1-249-429-11	CARBON	10K 5% 1/4W	R826	1-247-887-00	CARBON	220K 5% 1/4W
R621-623	1-249-422-11	CARBON	2.7K 5% 1/4W	R827	1-247-862-11	CARBON	20K 5% 1/4W
R631-633	1-249-422-11	CARBON	2.7K 5% 1/4W	R828	1-249-429-11	CARBON	10K 5% 1/4W
R651	1-247-708-11	CARBON	470 5% 1/4W	R829	1-247-862-11	CARBON	20K 5% 1/4W
R652	1-249-429-11	CARBON	10K 5% 1/4W	R830	1-249-429-11	CARBON	10K 5% 1/4W
R653	1-215-455-00	METAL	27K 1% 1/6W	R831	1-249-433-11	CARBON	22K 5% 1/4W
R654	1-249-422-11	CARBON	2.7K 5% 1/4W	R832	1-249-433-11	CARBON	22K 5% 1/4W
R655	1-249-441-11	CARBON	100K 5% 1/4W	R834	1-249-441-11	CARBON	100K 5% 1/4W
R702	1-249-425-11	CARBON	4.7K 5% 1/4W	R835	1-249-417-11	CARBON	1K 5% 1/4W
R703	1-249-425-11	CARBON	4.7K 5% 1/4W	R838	1-249-417-11	CARBON	1K 5% 1/4W
R704	1-249-429-11	CARBON	10K 5% 1/4W	R839	1-249-433-11	CARBON	22K 5% 1/4W
R705	1-249-425-11	CARBON	4.7K 5% 1/4W	R844-848	1-249-423-11	CARBON	3.3K 5% 1/4W
R706	1-249-425-11	CARBON	4.7K 5% 1/4W	R849	1-249-434-11	CARBON	27K 5% 1/4W
R707	1-249-427-11	CARBON	6.8K 5% 1/4W	R850	1-249-434-11	CARBON	27K 5% 1/4W
R708	1-249-419-11	CARBON	1.5K 5% 1/4W	R851	1-249-423-11	CARBON	3.3K 5% 1/4W
R709	1-249-429-11	CARBON	10K 5% 1/4W	R852	1-249-434-11	CARBON	27K 5% 1/4W
R710	1-249-419-11	CARBON	1.5K 5% 1/4W	R853	1-249-434-11	CARBON	27K 5% 1/4W
R711	1-249-425-11	CARBON	4.7K 5% 1/4W	R854	1-249-423-11	CARBON	3.3K 5% 1/4W
R712	1-249-427-11	CARBON	6.8K 5% 1/4W	R855	1-249-423-11	CARBON	3.3K 5% 1/4W
R713	1-249-427-11	CARBON	6.8K 5% 1/4W	R856	1-249-429-11	CARBON	10K 5% 1/4W
R714	1-249-417-11	CARBON	1K 5% 1/4W	R857	1-249-421-11	CARBON	2.2K 5% 1/4W
R715	1-247-844-11	CARBON	3.6K 5% 1/4W	R858	1-249-421-11	CARBON	2.2K 5% 1/4W
R716	1-249-430-11	CARBON	12K 5% 1/4W	R859	1-249-429-11	CARBON	10K 5% 1/4W
R717	1-249-428-11	CARBON	8.2K 5% 1/4W	R881	1-249-429-11	CARBON	10K 5% 1/4W
R718	1-249-437-11	CARBON	47K 5% 1/4W	R895	1-249-417-11	CARBON	1K 5% 1/4W
R719	1-219-136-11	FUSIBLE	0.22 10% 1/4W	R896	1-249-433-11	CARBON	22K 5% 1/4W
R720	1-249-414-11	CARBON	560 5% 1/4W	R897	1-249-429-11	CARBON	10K 5% 1/4W
R730	1-219-136-11	FUSIBLE	0.22 10% 1/4W	R898	1-249-425-11	CARBON	4.7K 5% 1/4W
R801	1-249-429-11	CARBON	10K 5% 1/4W	R899	1-247-840-00	CARBON	2.4K 5% 1/4W
R803	1-249-422-11	CARBON	2.7K 5% 1/4W	R981	1-249-430-11	CARBON	12K 5% 1/4W
R804	1-249-426-11	CARBON	5.6K 5% 1/4W	R982-984	1-249-433-11	CARBON	22K 5% 1/4W
R805	1-247-852-11	CARBON	7.5K 5% 1/4W	R985	1-249-405-11	CARBON	100 5% 1/4W
R806	1-247-858-11	CARBON	13K 5% 1/4W	R991	1-249-430-11	CARBON	12K 5% 1/4W
R807	1-249-422-11	CARBON	2.7K 5% 1/4W	R992-994	1-249-433-11	CARBON	22K 5% 1/4W
R808	1-249-426-11	CARBON	5.6K 5% 1/4W	R995	1-249-405-11	CARBON	100 5% 1/4W
R809	1-247-852-11	CARBON	7.5K 5% 1/4W				

Ref. No.	Part No.	Description	Remark		Ref. No.	Part No.	Description	Remark								
< VARIABLE RESISTOR >																
RV171	1-238-600-11	RES, ADJ, CARBON 10K	C94	1-136-478-11	FILM	470PF	5%	630V								
RV181	1-238-600-11	RES, ADJ, CARBON 10K	C95	1-136-433-11	FILM	100PF	5%	630V								
RV271	1-238-600-11	RES, ADJ, CARBON 10K	C96	1-163-143-00	CERAMIC CHIP	0.0012uF	5%	50V								
RV281	1-238-600-11	RES, ADJ, CARBON 10K	C97	1-136-273-91	FILM	75PF	5%	630V								
			C98	1-163-003-11	CERAMIC CHIP	330PF	10%	50V								
			C99	1-164-005-11	CERAMIC CHIP	0.47uF		25V								
< TEST PIN >																
* TP1	1-564-505-11	PLUG, CONNECTOR 2P	< CONNECTOR >		< CONNECTOR >		< CONNECTOR >									
* TP2	1-564-506-11	PLUG, CONNECTOR 3P														
< VIBRATOR >																
X801	1-579-175-11	VIBRATOR, CERAMIC (10MHz)														
*****																
* A-2006-401-A	MD HX BOARD, COMPLETE	*****														
< CAPACITOR >																
C11	1-163-131-00	CERAMIC CHIP	390PF	5%	50V	IC31	8-759-106-02	IC	uPC4570G2							
C12	1-136-157-00	FILM	0.022uF	5%	50V	IC81	8-759-106-56	IC	uPC1297CA							
C13	1-124-234-00	ELECT	22uF	20%	16V	< INDUCTOR >		< INDUCTOR >								
C18	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	L81	1-410-780-11	INDUCTOR	27mH							
C21	1-163-131-00	CERAMIC CHIP	390PF	5%	50V	L91	1-410-780-11	INDUCTOR	27mH							
C22	1-136-157-00	FILM	0.022uF	5%	50V	< TRANSISTOR >		< TRANSISTOR >								
C23	1-124-234-00	ELECT	22uF	20%	16V	Q51-53	8-729-808-01	TRANSISTOR	2SD1622-S							
C28	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	Q71	8-729-216-22	TRANSISTOR	2SA1162-G							
C31-33	1-124-234-00	ELECT	22uF	20%	16V	< RESISTOR >		< RESISTOR >								
C51	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V	R11	1-216-099-00	METAL CHIP	120K 5% 1/10W							
C52	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V	R12	1-216-025-00	METAL CHIP	100 5% 1/10W							
C53	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V	R13	1-216-100-00	METAL GLAZE	130K 5% 1/10W							
C54	1-136-601-11	FILM	0.01uF	5%	630V	R14	1-216-067-00	METAL CHIP	5.6K 5% 1/10W							
C56	1-164-505-11	CERAMIC CHIP	2.2uF		16V	R21	1-216-099-00	METAL CHIP	120K 5% 1/10W							
C57	1-164-346-11	CERAMIC CHIP	1uF		16V	R22	1-216-025-00	METAL CHIP	100 5% 1/10W							
C71	1-164-346-11	CERAMIC CHIP	1uF		16V	R23	1-216-100-00	METAL GLAZE	130K 5% 1/10W							
C80	1-124-234-00	ELECT	22uF	20%	16V	R24	1-216-067-00	METAL CHIP	5.6K 5% 1/10W							
C81	1-164-232-11	CERAMIC CHIP	0.01uF		50V	R31	1-216-033-00	METAL CHIP	220 5% 1/10W							
C82	1-136-157-00	FILM	0.022uF	5%	50V	R32	1-216-033-00	METAL CHIP	220 5% 1/10W							
C83	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V	R51	1-216-097-00	METAL CHIP	100K 5% 1/10W							
C84	1-136-478-11	FILM	470PF	5%	630V	R52	1-216-097-00	METAL CHIP	100K 5% 1/10W							
C85	1-136-433-11	FILM	100PF	5%	630V	R53	1-216-073-00	METAL CHIP	10K 5% 1/10W							
C86	1-163-143-00	CERAMIC CHIP	0.0012uF	5%	50V	R54	1-216-309-00	METAL CHIP	5.6 5% 1/10W							
C87	1-136-273-91	FILM	75PF	5%	630V	R55	1-216-309-00	METAL CHIP	5.6 5% 1/10W							
C88	1-163-003-11	CERAMIC CHIP	330PF	10%	50V	R57	1-216-298-00	METAL CHIP	2.2 5% 1/10W							
C89	1-124-234-00	ELECT	22uF	20%	16V	R71	1-216-082-00	METAL GLAZE	24K 5% 1/10W							
C90	1-107-045-00	MICA	3.9PF		500V											
C91	1-164-232-11	CERAMIC CHIP	0.01uF		50V											
C92	1-136-157-00	FILM	0.022uF	5%	50V											
C93	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V											

Ref. No.	Part No.	Description		Remark
R72	1-216-081-00	METAL CHIP	22K 5%	1/10W
R73	1-216-089-00	METAL CHIP	47K 5%	1/10W
R74	1-216-089-00	METAL CHIP	47K 5%	1/10W
R81	1-216-073-00	METAL CHIP	10K 5%	1/10W
R82	1-216-085-00	METAL CHIP	33K 5%	1/10W
R83	1-216-001-00	METAL CHIP	10 5%	1/10W
R84	1-216-101-00	METAL CHIP	150K 5%	1/10W
R85	1-216-075-00	METAL CHIP	12K 5%	1/10W
R91	1-216-073-00	METAL CHIP	10K 5%	1/10W
R92	1-216-085-00	METAL CHIP	33K 5%	1/10W
R93	1-216-001-00	METAL CHIP	10 5%	1/10W
R94	1-216-101-00	METAL CHIP	150K 5%	1/10W
R95	1-216-075-00	METAL CHIP	12K 5%	1/10W

## &lt; VARIABLE RESISTOR &gt;

RV11	1-238-012-11	RES, ADJ, CARBON 1K
RV21	1-238-012-11	RES, ADJ, CARBON 1K
RV71	1-241-630-11	RES, ADJ, CARBON 10K
RV72	1-241-630-11	RES, ADJ, CARBON 10K
RV81	1-241-122-11	RES, ADJ, CARBON 22K

RV91	1-241-122-11	RES, ADJ, CARBON 22K
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## &lt; RELAY &gt;

RY31	1-515-913-11	RELAY
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## &lt; TRANSFORMER &gt;

T51	1-406-417-11	COIL, BIAS OSCILLATION
T81	1-433-381-11	TRANSFORMER, BIAS OSCILLATOR
T91	1-433-381-11	TRANSFORMER, BIAS OSCILLATOR

## &lt; TEST PIN &gt;

\* TP81 1-568-449-11 HOUSING, CONNECTOR(PC BOARD) 3P

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Ref. No.	Part No.	Description	Remark
*	A-2007-029-A	PANEL BOARD, COMPLETE (WR735S:Canadian, WR701ES)	
*	A-2007-030-A	PANEL BOARD, COMPLETE (WR735S:AEP, G, AUS)	
		*****	
		TRANSFORMER BOARD	
		*****	
		SW(B) BOARD	
		*****	
		CONNECTOR BOARD	
		*****	
		SW(A) BOARD	
		*****	
		POWER SW BOARD	
		*****	
		H. P. BOARD	
		*****	

1-533-183-11 HOLDER, FUSE

## &lt; CAPACITOR &gt;

C185	1-162-294-31	CERAMIC	0.001uF	10%	50V
C285	1-162-294-31	CERAMIC	0.001uF	10%	50V
C591	1-126-103-11	ELECT	470uF	20%	16V
C713	1-164-159-11	CERAMIC	0.1uF		50V
			(WR735S:AEP, G, AUS)		
C714	1-164-159-11	CERAMIC	0.1uF		50V
			(WR735S:AEP, G, AUS)		
C715	1-164-159-11	CERAMIC	0.1uF		50V
			(WR735S:Canadian, WR701ES)		
C716	1-164-159-11	CERAMIC	0.1uF		50V
			(WR735S:Canadian, WR701ES)		
C731	1-136-169-00	FILM	0.22uF	5%	50V
C732	1-136-169-00	FILM	0.22uF	5%	50V
C901	1-126-157-11	ELECT	10uF	20%	16V

## &lt; CONNECTOR &gt;

* CN32A	1-580-784-11	CONNECTOR, BOARD TO BOARD
* CN33A	1-580-784-11	CONNECTOR, BOARD TO BOARD
CN502	1-750-425-11	CONNECTOR, FFC/FPC 20P
* CN703	1-580-230-31	PIN, CONNECTOR (PC BOARD) 2P (WR735S:AEP, G, AUS)
* CN704	1-580-230-31	PIN, CONNECTOR (PC BOARD) 2P (WR735S:Canadian, WR701ES)

CN903	1-691-646-11	SOCKET, CONNECTOR 11P
CN904	1-691-644-11	SOCKET, CONNECTOR 7P
CN905	1-691-646-11	SOCKET, CONNECTOR 11P
CN906	1-691-644-11	SOCKET, CONNECTOR 7P
CNP901	1-750-454-11	CONNECTOR, FFC/FPC 13P

CNP902 1-750-468-11 CONNECTOR, FFC/FPC 27P

## PANEL

## SW-A

Ref. No.	Part No.	Description	Remark		
< CONNECTOR >					
ECP1	1-690-880-81	LEAD (WITH CONNECTOR)			
< FUSE >					
AF702	1-532-259-00	FUSE, TIME-LAG (T1.6AL) (WR735S:AEP, G, AUS)			
AF703	1-532-259-00	FUSE, TIME-LAG (T1.6AL) (WR735S:AEP, G, AUS)			
AF704	1-532-743-11	FUSE, GLASS TUBE (2A/125V) (WR735S:Canadian, WR701ES)			
AF705	1-532-743-11	FUSE, GLASS TUBE (2A/125V) (WR735S:Canadian, WR701ES)			
< IC >					
IC901	8-741-100-48	IC SBX1610-59			
< JACK >					
J502	1-507-796-71	JACK (HEADPHONES)			
< RESISTOR >					
R534	1-247-862-11	CARBON 20K 5% 1/4W			
R535	1-247-862-11	CARBON 20K 5% 1/4W			
R536	1-249-431-11	CARBON 15K 5% 1/4W			
R840-843	1-249-429-11	CARBON 10K 5% 1/4W			
R871	1-249-429-11	CARBON 10K 5% 1/4W			
R901	1-249-418-11	CARBON 1.2K 5% 1/4W F			
R902	1-249-420-11	CARBON 1.8K 5% 1/4W F			
R903	1-249-422-11	CARBON 2.7K 5% 1/4W F			
R904	1-249-424-11	CARBON 3.9K 5% 1/4W F			
R905	1-249-427-11	CARBON 6.8K 5% 1/4W F			
R907	1-249-422-11	CARBON 2.7K 5% 1/4W F			
R908	1-249-424-11	CARBON 3.9K 5% 1/4W F			
R909	1-249-427-11	CARBON 6.8K 5% 1/4W F			
R910	1-249-431-11	CARBON 15K 5% 1/4W			
R911	1-249-437-11	CARBON 47K 5% 1/4W			
R912	1-249-418-11	CARBON 1.2K 5% 1/4W F			
R913	1-249-420-11	CARBON 1.8K 5% 1/4W F			
R914	1-249-422-11	CARBON 2.7K 5% 1/4W F			
R915	1-249-424-11	CARBON 3.9K 5% 1/4W F			
R916	1-249-431-11	CARBON 15K 5% 1/4W			
R917	1-249-418-11	CARBON 1.2K 5% 1/4W F			
R918	1-249-420-11	CARBON 1.8K 5% 1/4W F			
R919	1-249-418-11	CARBON 1.2K 5% 1/4W F			
R920	1-249-420-11	CARBON 1.8K 5% 1/4W F			
R921	1-249-422-11	CARBON 2.7K 5% 1/4W F			
R922	1-249-424-11	CARBON 3.9K 5% 1/4W F			
R923	1-249-427-11	CARBON 6.8K 5% 1/4W F			

Ref. No.	Part No.	Description	Remark		
R924	1-249-427-11	CARBON . 6.8K 5% 1/4W F			
R925	1-249-431-11	CARBON 15K 5% 1/4W			
R926	1-249-437-11	CARBON 47K 5% 1/4W			
R927	1-249-437-11	CARBON 47K 5% 1/4W			
R940	1-249-431-11	CARBON 15K 5% 1/4W			
< VARIABLE RESISTOR >					
RV501	1-223-332-11	RES, VAR, CARBON 10K (REC LEVEL)			
RV502	1-223-333-11	RES, VAR, CARBON 100K (BALANCE)			
< SWITCH >					
S901	1-554-303-21	SWITCH, TACTILE (SYNCHRO DUBBING A→B (HIGH))			
S902	1-554-303-21	SWITCH, TACTILE (SYNCHRO DUBBING A→B (NORMAL))			
S903	1-554-303-21	SWITCH, TACTILE (A+B REC)			
S904	1-554-303-21	SWITCH, TACTILE (COUNTER (RESET)) (DECK B)			
S905	1-554-303-21	SWITCH, TACTILE (COUNTER (MEMORY)) (DECK B)			
S906	1-554-303-21	SWITCH, TACTILE (COUNTER (MEMORY)) (DECK A)			
S907	1-554-303-21	SWITCH, TACTILE (AUTO CALIBRATION) (DECK A)			
S908	1-554-303-21	SWITCH, TACTILE (AUTO CALIBRATION) (DECK B)			
S909	1-554-303-21	SWITCH, TACTILE (■) (DECK A)			
S910	1-554-303-21	SWITCH, TACTILE (▷) (DECK A)			
S911	1-554-303-21	SWITCH, TACTILE (◁) (DECK A)			
S912	1-554-303-21	SWITCH, TACTILE (II PAUSE) (DECK A)			
S913	1-554-303-21	SWITCH, TACTILE (● REC MUTE) (DECK A)			
S914	1-554-303-21	SWITCH, TACTILE (● REC) (DECK A)			
S915	1-554-303-21	SWITCH, TACTILE (◀) (DECK A)			
S916	1-554-303-21	SWITCH, TACTILE (▶) (DECK A)			
S917	1-554-303-21	SWITCH, TACTILE (■) (DECK B)			
S918	1-554-303-21	SWITCH, TACTILE (▷) (DECK B)			
S919	1-554-303-21	SWITCH, TACTILE (◁) (DECK B)			
S920	1-554-303-21	SWITCH, TACTILE (II PAUSE) (DECK B)			
S921	1-554-303-21	SWITCH, TACTILE (● REC MUTE) (DECK B)			
S922	1-554-303-21	SWITCH, TACTILE (◀) (DECK B)			
S923	1-554-303-21	SWITCH, TACTILE (▶) (DECK B)			
S924	1-554-303-21	SWITCH, TACTILE (● REC) (DECK B)			
S925	1-692-465-11	SWITCH, SLIDE (DIR MODE)			
S927	1-554-118-00	SWITCH, PUSH (1 KEY) (MPX FILTER)			
S928	1-692-466-11	SWITCH, ROTARY (DOLBY NR)			
S930	1-554-303-21	SWITCH, TACTILE (COUNTER (RESET)) (DECK A)			
S931	1-554-118-00	SWITCH, PUSH (1 KEY) (POWER)			

The components identified by mark **A** or dotted line with mark. **A** are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque **A** sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
< FLUORESCENT INDICATOR >			
VFD901 1-517-162-11 INDICATOR TUBE, FLUORESCENT			
*	1-634-841-14	SW-A BOARD	*****
< CONNECTOR >			
* CNP81	1-568-852-11	SOCKET, CONNECTOR 9P	
< IC >			
IC81	8-719-710-03	IC PHOTO REFLECTOR NJL5165K-B (H1)	
IC82	8-719-710-03	IC PHOTO REFLECTOR NJL5165K-B (H1)	
< RESISTOR >			
R81	1-249-414-11	CARBON	560 5% 1/4W
R82	1-247-818-11	CARBON	300 5% 1/4W
R83	1-247-834-11	CARBON	1.3K 5% 1/4W
R84	1-249-417-11	CARBON	1K 5% 1/4W
R85	1-249-408-11	CARBON	180 5% 1/4W
R86	1-249-408-11	CARBON	180 5% 1/4W
< SWITCH >			
S81	1-571-958-11	SWITCH, PUSH (1 KEY) (STOP DET)	
S82	1-571-281-21	SWITCH, LEAF (70u DET)	
S83	1-571-281-21	SWITCH, LEAF (METAL DET)	
S84	1-571-281-21	SWITCH, LEAF (ERASE PROOF (SIDE A))	
S85	1-571-281-21	SWITCH, LEAF (ERASE PROOF (SIDE B))	
S86	1-571-281-21	SWITCH, LEAF (HALF DET)	
*****			
MISCELLANEOUS			
*****			
11	1-575-730-11	WIRE, FLAT TYPE (5 CORE)	
12	1-590-217-11	WIRE, FLAT TYPE (20 CORE)	
△13	1-558-945-21	CORD, POWER (POLAR SPT-1) (WR735S:Canadian, WR701ES)	
△13	1-575-651-21	CORD, POWER (WR735S:AEP, G)	
△13	1-696-845-11	CORD, POWER (WR735S:AUS)	
66	1-575-905-11	WIRE, FLAT TYPE (9 CORE)	
70	1-690-589-31	WIRE, FLAT TYPE (13 CORE)	
71	1-690-729-11	WIRE, FLAT TYPE (27 CORE)	
73	1-575-905-11	WIRE, FLAT TYPE (9 CORE)	
84	1-590-241-11	WIRE, FLAT TYPE (7 CORE)	
85	1-590-241-11	WIRE, FLAT TYPE (11 CORE)	
120	1-638-983-11	MOTOR FLEXIBLE BOARD	
HRPE101 A-2003-838-F DECK ASSY, HEAD (RECORD/PLAYBACK/ERASE)			
M1	X-3365-377-1	MOTOR (CAPSTAN) ASSY	

Ref. No.	Part No.	Description	Remark
M2	X-3363-501-1	MOTOR (RELL) ASSY	
△T701	1-450-869-11	TRANSFORMER, POWER (WR735S:Canadian, WR701ES)	
△T701	1-450-870-11	TRANSFORMER, POWER (WR735S:AEP, G, AUS)	

\*\*\*\*\*  
ACCESORIES & PACKING MATERIALS  
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1-465-738-11	REMOTE COMMANDER (RM-J903) (WR735S:Canadian)
1-558-271-11	CORD, CONNECTION
1-696-170-11	CORD, CONNECTION
2-181-754-01	COVER, BATTERY (WR735S:Canadian)
*	3-354-913-01 CUSHION
*	3-389-330-01 INDIVIDUAL CARTON (WR701ES)
*	3-389-330-11 INDIVIDUAL CARTON (WR735S)
3-755-288-11	MANUAL, INSTRUCTION (RM) (ENGLISH, FRENCH) (WR735S:Canadian)
3-756-576-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, PORTUGUESE) (WR735S:AEP)
3-756-576-21	MANUAL, INSTRUCTION (ENGLISH) (WR735S:Canadian, AUS, WR701ES)
3-756-576-31	MANUAL, INSTRUCTION (FRENCH) (WR735S:Canadian)
3-756-576-41	MANUAL, INSTRUCTION (GERMAN, DUTCH, SWEDISH, ITALIAN) (WR735S:AEP)
3-756-576-51	MANUAL, INSTRUCTION (GERMAN) (WR735S:G)

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HARDWARE LIST  
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#1	7-682-548-09 SCREW +BVTT 3X8 (S)
#2	7-685-534-19 SCREW +BTP 2.6X8 TYPE2 N-S
#3	7-682-547-09 SCREW +BVTT 3X6 (S)
#4	7-621-849-00 SCREW (BV/RING)
#5	7-685-646-79 SCREW +BVTP 3X8 TYPE2 IT-3
#6	7-621-770-XX SCREW +BVTT 2.6X8 (S)
#7	7-621-773-95 SCREW +BVTT 2.6X6 (S)
#8	7-685-134-19 SCREW (+ PTPWH) (2.6X8)
#9	7-621-775-00 SCREW +B 2.6X3
#10	7-627-556-08 SCREW +P 2.6X2.8

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# TC-WR701ES/WR735S

**SONY®  
SERVICE MANUAL**

*US Model*

TC-WR701ES

*Canadian Model*

*AEP Model*

*Australian Model*

TC-WR735S

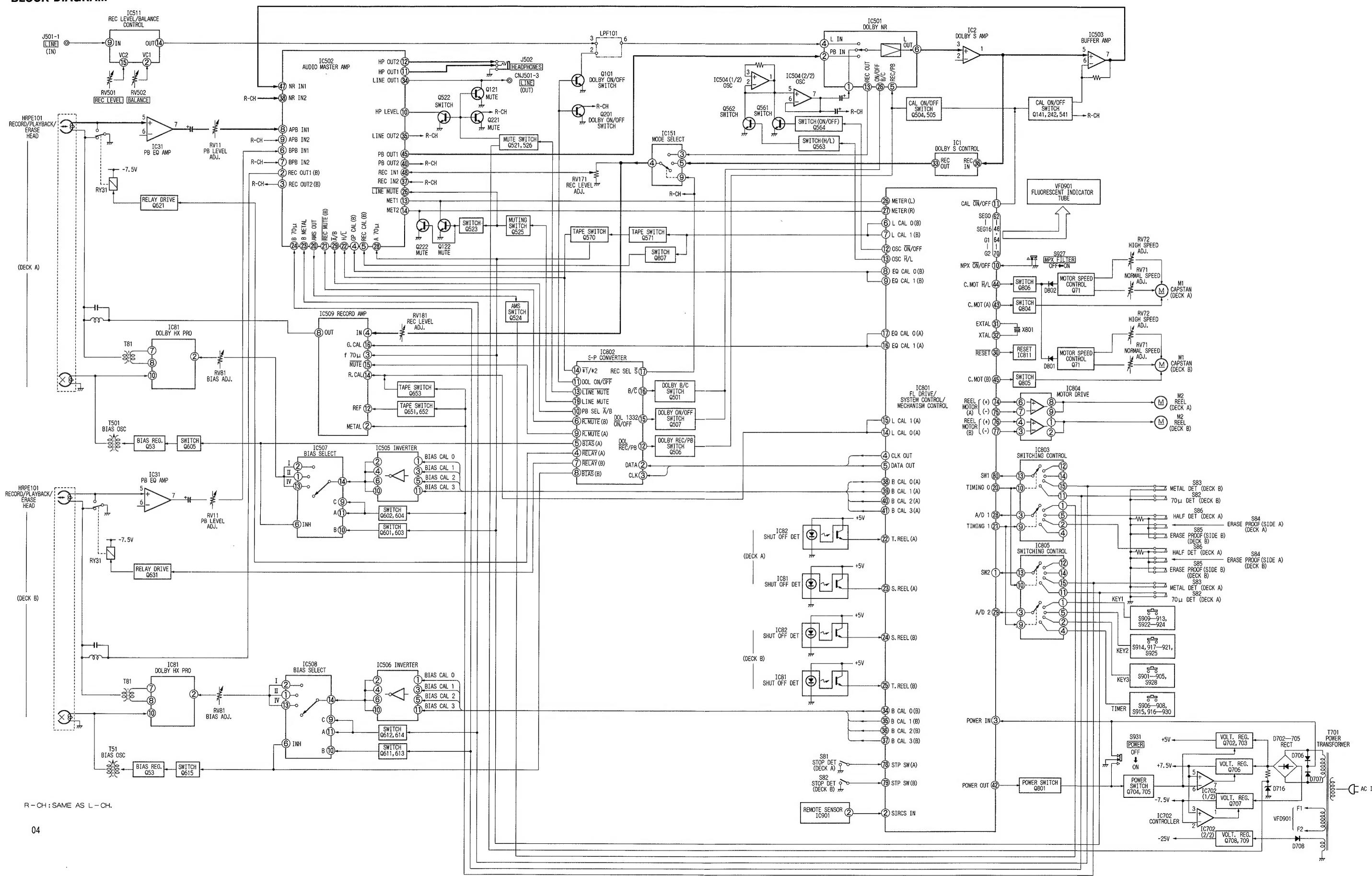
## SUPPLEMENT-1

File this supplement with the service manual.

**BLOCK DIAGRAM**



## BLOCK DIAGRAM



R - CH : SAME AS L - CH.